

PC-0032 US

<110> Reddy, Roopa
Tang, Y. Tom
Baughn, Mariah R.
Krasnow, Randi E.

<120> ASIP-RELATED PROTEINS

<130> PC-0032 US

<140> To Be Assigned

<141> Herewith

<160> 63

<170> PERL Program

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<211> 935

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1555118CD1

<400> 1

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| Met | Lys | Val | Thr | Val | Cys | Phe | Gly | Arg | Thr | Gly | Ile | Val | Val | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 |
| Cys | Lys | Glu | Gly | Gln | Leu | Arg | Val | Gly | Glu | Leu | Thr | Gln | Gln | Ala |
| | | | | 20 | | | | | 25 | | | | | 30 |
| Leu | Gln | Arg | Tyr | Leu | Lys | Thr | Arg | Glu | Lys | Gly | Pro | Gly | Tyr | Trp |
| | | | | 35 | | | | | 40 | | | | | 45 |
| Val | Lys | Ile | His | His | Leu | Glu | Tyr | Thr | Asp | Gly | Gly | Ile | Leu | Asp |
| | | | | 50 | | | | | 55 | | | | | 60 |
| Pro | Asp | Asp | Val | Leu | Ala | Asp | Val | Val | Glu | Asp | Lys | Asp | Lys | Leu |
| | | | | 65 | | | | | 70 | | | | | 75 |
| Ile | Ala | Val | Phe | Glu | Glu | Gln | Glu | Pro | Leu | His | Lys | Ile | Glu | Ser |
| | | | | 80 | | | | | 85 | | | | | 90 |
| Pro | Ser | Gly | Asn | Pro | Ala | Asp | Arg | Gln | Ser | Pro | Asp | Ala | Phe | Glu |
| | | | | 95 | | | | | 100 | | | | | 105 |
| Thr | Glu | Val | Ala | Ala | Gln | Leu | Ala | Ala | Phe | Lys | Pro | Ile | Gly | Gly |
| | | | | 110 | | | | | 115 | | | | | 120 |
| Glu | Ile | Glu | Val | Thr | Pro | Ser | Ala | Leu | Lys | Leu | Gly | Thr | Pro | Leu |
| | | | | 125 | | | | | 130 | | | | | 135 |
| Leu | Val | Arg | Arg | Ser | Ser | Asp | Pro | Val | Pro | Gly | Pro | Pro | Ala | Asp |
| | | | | 140 | | | | | 145 | | | | | 150 |
| Thr | Gln | Pro | Ser | Ala | Ser | His | Pro | Gly | Gly | Gln | Ser | Leu | Lys | Leu |
| | | | | 155 | | | | | 160 | | | | | 165 |
| Val | Val | Pro | Asp | Ser | Thr | Gln | Asn | Leu | Glu | Asp | Arg | Glu | Val | Leu |
| | | | | 170 | | | | | 175 | | | | | 180 |
| Asn | Gly | Val | Gln | Thr | Glu | Leu | Leu | Thr | Ser | Pro | Arg | Thr | Lys | Asp |
| | | | | 185 | | | | | 190 | | | | | 195 |
| Thr | Leu | Ser | Asp | Met | Thr | Arg | Thr | Val | Glu | Ile | Ser | Gly | Glu | Gly |
| | | | | 200 | | | | | 205 | | | | | 210 |
| Gly | Pro | Leu | Gly | Ile | His | Val | Val | Pro | Phe | Phe | Ser | Ser | Leu | Ser |
| | | | | 215 | | | | | 220 | | | | | 225 |

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| | | | |
|-----------------|---------------------|---------------------|-----|
| Gly Arg Ile Leu | Gly Leu Phe Ile Arg | Gly Ile Glu Asp Asn | Ser |
| 230 | 235 | 240 | |
| Arg Ser Lys Arg | Glu Gly Leu Phe His | Glu Asn Glu Cys Ile | Val |
| 245 | 250 | 255 | |
| Lys Ile Asn Asn | Val Asp Leu Val Asp | Lys Thr Phe Ala Gln | Ala |
| 260 | 265 | 270 | |
| Gln Asp Val Phe | Arg Gln Ala Met Lys | Ser Pro Ser Val Leu | Leu |
| 275 | 280 | 285 | |
| His Val Leu Pro | Pro Gln Asn Arg Glu | Gln Tyr Glu Lys Ser | Val |
| 290 | 295 | 300 | |
| Ile Gly Ser Leu | Asn Ile Phe Gly Asn | Asn Asp Gly Val Leu | Lys |
| 305 | 310 | 315 | |
| Thr Lys Val Pro | Pro Pro Val His Gly | Lys Ser Gly Leu Lys | Thr |
| 320 | 325 | 330 | |
| Ala Asn Leu Thr | Gly Thr Asp Ser Pro | Glu Thr Asp Ala Ser | Ala |
| 335 | 340 | 345 | |
| Ser Leu Gln Gln | Asn Lys Ser Pro Arg | Val Pro Arg Leu Gly | Gly |
| 350 | 355 | 360 | |
| Lys Pro Ser Ser | Pro Ser Leu Ser Pro | Leu Met Gly Phe Gly | Ser |
| 365 | 370 | 375 | |
| Asn Lys Asn Ala | Lys Lys Ile Lys Ile | Asp Leu Lys Lys Gly | Pro |
| 380 | 385 | 390 | |
| Glu Gly Leu Gly | Phe Thr Val Val Thr | Arg Asp Ser Ser Ile | His |
| 395 | 400 | 405 | |
| Gly Pro Gly Pro | Ile Phe Val Lys Asn | Ile Leu Pro Lys Gly | Ala |
| 410 | 415 | 420 | |
| Ala Ile Lys Asp | Gly Arg Leu Gln Ser | Gly Asp Arg Ile Leu | Glu |
| 425 | 430 | 435 | |
| Val Asn Gly Arg | Asp Val Thr Gly Arg | Gln Glu Glu Leu Val | |
| 440 | 445 | 450 | |
| Ala Met Leu Arg | Ser Thr Lys Gln Gly | Glu Thr Ala Ser Leu | Val |
| 455 | 460 | 465 | |
| Ile Ala Arg Gln | Glu Gly His Phe Leu | Pro Arg Glu Leu Lys | Gly |
| 470 | 475 | 480 | |
| Glu Pro Asp Cys | Cys Ala Leu Ser Leu | Glu Thr Ser Glu Gln | Leu |
| 485 | 490 | 495 | |
| Thr Phe Glu Ile | Pro Leu Asn Asp Ser | Gly Ser Ala Gly Leu | Gly |
| 500 | 505 | 510 | |
| Val Ser Leu Lys | Gly Asn Lys Ser Arg | Glu Thr Gly Thr Asp | Leu |
| 515 | 520 | 525 | |
| Gly Ile Phe Ile | Lys Ser Ile Ile His | Gly Gly Ala Ala Phe | Lys |
| 530 | 535 | 540 | |
| Asp Gly Arg Leu | Arg Met Asn Asp Gln | Leu Ile Ala Val Asn | Gly |
| 545 | 550 | 555 | |
| Glu Ser Leu Leu | Gly Lys Ser Asn His | Glu Ala Met Glu Thr | Leu |
| 560 | 565 | 570 | |
| Arg Arg Pro Met | Ser Met Glu Gly Asn | Ile Arg Gly Met Ile | Gln |
| 575 | 580 | 585 | |
| Leu Val Ile Leu | Arg Arg Pro Glu Arg | Pro Met Glu Asp Pro | Ala |
| 590 | 595 | 600 | |
| Glu Cys Gly Ala | Phe Ser Lys Pro Cys | Phe Glu Asn Cys Gln | Asn |
| 605 | 610 | 615 | |
| Ala Val Thr Thr | Ser Arg Arg Asn Asp | Asn Ser Ile Leu His | Pro |
| 620 | 625 | 630 | |
| Leu Gly Thr Cys | Ser Pro Gln Asp Lys | Gln Lys Gly Leu Leu | Leu |
| 635 | 640 | 645 | |

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asn | Asp | Gly | Trp | Ala | Glu | Ser | Glu | Val | Pro | Pro | Ser | Pro | Thr |
| | | | | 650 | | | | | 655 | | | | | 660 |
| Pro | His | Ser | Ala | Leu | Gly | Leu | Gly | Leu | Glu | Asp | Tyr | Ser | His | Ser |
| | | | | 665 | | | | | 670 | | | | | 675 |
| Ser | Gly | Val | Asp | Ser | Ala | Val | Tyr | Phe | Pro | Asp | Gln | His | Ile | Asn |
| | | | | 680 | | | | | 685 | | | | | 690 |
| Phe | Arg | Ser | Val | Thr | Pro | Ala | Arg | Gln | Pro | Glu | Ser | Ile | Asn | Leu |
| | | | | 695 | | | | | 700 | | | | | 705 |
| Lys | Ala | Ser | Lys | Ser | Met | Asp | Leu | Val | Pro | Asp | Glu | Ser | Lys | Val |
| | | | | 710 | | | | | 715 | | | | | 720 |
| His | Ser | Leu | Ala | Gly | Gln | Lys | Ser | Glu | Ser | Pro | Ser | Lys | Asp | Phe |
| | | | | 725 | | | | | 730 | | | | | 735 |
| Gly | Pro | Thr | Leu | Gly | Leu | Lys | Lys | Ser | Ser | Ser | Leu | Glu | Ser | Leu |
| | | | | 740 | | | | | 745 | | | | | 750 |
| Gln | Thr | Ala | Val | Ala | Glu | Val | Arg | Lys | Asn | Asp | Leu | Pro | Phe | His |
| | | | | 755 | | | | | 760 | | | | | 765 |
| Arg | Pro | Arg | Pro | His | Met | Val | Arg | Gly | Arg | Gly | Cys | Asn | Glu | Ser |
| | | | | 770 | | | | | 775 | | | | | 780 |
| Phe | Arg | Ala | Ala | Ile | Asp | Lys | Ser | Tyr | Asp | Gly | Pro | Glu | Glu | Ile |
| | | | | 785 | | | | | 790 | | | | | 795 |
| Glu | Ala | Asp | Gly | Leu | Ser | Asp | Lys | Ser | Ser | His | Ser | Gly | Gln | Gly |
| | | | | 800 | | | | | 805 | | | | | 810 |
| Ala | Leu | Asn | Cys | Glu | Ser | Ala | Pro | Gln | Gly | Asn | Ser | Glu | Leu | Glu |
| | | | | 815 | | | | | 820 | | | | | 825 |
| Asp | Met | Glu | Asn | Lys | Ala | Arg | Lys | Val | Lys | Lys | Thr | Lys | Glu | Lys |
| | | | | 830 | | | | | 835 | | | | | 840 |
| Glu | Lys | Lys | Lys | Glu | Lys | Gly | Lys | Leu | Lys | Val | Lys | Glu | Lys | Lys |
| | | | | 845 | | | | | 850 | | | | | 855 |
| Arg | Lys | Glu | Glu | Asn | Glu | Asp | Pro | Glu | Arg | Lys | Ile | Lys | Lys | Lys |
| | | | | 860 | | | | | 865 | | | | | 870 |
| Gly | Phe | Gly | Ala | Met | Leu | Arg | Tyr | Gly | Pro | Ala | Leu | Lys | Ala | Lys |
| | | | | 875 | | | | | 880 | | | | | 885 |
| Leu | Val | Leu | Ile | Leu | Ser | Leu | Leu | Lys | Lys | Ala | His | Ala | Phe | Pro |
| | | | | 890 | | | | | 895 | | | | | 900 |
| Arg | Leu | Gln | Pro | Asn | Ala | Tyr | Gly | Ser | Gln | Phe | Cys | Ala | Arg | Ser |
| | | | | 905 | | | | | 910 | | | | | 915 |
| Leu | Ser | Ala | Glu | Ala | Glu | Glu | Leu | Phe | Gly | Glu | Ser | Tyr | Ser | Asp |
| | | | | 920 | | | | | 925 | | | | | 930 |
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| Cys | Gly | Asp | Gly | His | Met | Lys | Val | Phe | Ser | Leu | Ile | Gln | Gln | Ala |
| | | | | 20 | | | | | 25 | | | | | 30 |
| Val | Thr | Arg | Tyr | Arg | Lys | Ala | Ile | Ala | Lys | Asp | Pro | Asn | Tyr | Trp |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
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| Ile | Gln | Val | His | Arg | Leu | Glu | His | Gly | Asp | Gly | Gly | Ile | Leu | Asp |
| | | | | 50 | | | | | 55 | | | | | 60 |
| Leu | Asp | Asp | Ile | Leu | Cys | Asp | Val | Ala | Asp | Asp | Lys | Asp | Arg | Leu |
| | | | | 65 | | | | | 70 | | | | | 75 |
| Val | Ala | Val | Phe | Asp | Glu | Gln | Asp | Pro | His | His | Gly | Gly | Asp | Gly |
| | | | | 80 | | | | | 85 | | | | | 90 |
| Thr | Ser | Ala | Ser | Ser | Thr | Gly | Thr | Gln | Ser | Pro | Glu | Ile | Phe | Gly |
| | | | | 95 | | | | | 100 | | | | | 105 |
| Ser | Glu | Leu | Gly | Thr | Asn | Asn | Val | Ser | Ala | Phe | Gln | Pro | Tyr | Gln |
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| Ala | Thr | Ser | Glu | Ile | Glu | Val | Thr | Pro | Ser | Val | Leu | Arg | Ala | Asn |
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| Met | Pro | Leu | His | Val | Arg | Arg | Ser | Ser | Asp | Pro | Ala | Leu | Ile | Gly |
| | | | | 140 | | | | | 145 | | | | | 150 |
| Leu | Ser | Thr | Ser | Val | Ser | Asp | Ser | Asn | Phe | Ser | Ser | Glu | Glu | Pro |
| | | | | 155 | | | | | 160 | | | | | 165 |
| Ser | Arg | Lys | Asn | Pro | Thr | Arg | Trp | Ser | Thr | Thr | Ala | Gly | Phe | Leu |
| | | | | 170 | | | | | 175 | | | | | 180 |
| Lys | Gln | Asn | Thr | Ala | Gly | Ser | Pro | Lys | Thr | Cys | Asp | Arg | Lys | Lys |
| | | | | 185 | | | | | 190 | | | | | 195 |
| Asp | Glu | Asn | Tyr | Arg | Ser | Leu | Pro | Arg | Asp | Thr | Ser | Asn | Trp | Ser |
| | | | | 200 | | | | | 205 | | | | | 210 |
| Asn | Gln | Phe | Gln | Arg | Asp | Asn | Ala | Arg | Ser | Ser | Leu | Ser | Ala | Ser |
| | | | | 215 | | | | | 220 | | | | | 225 |
| His | Pro | Met | Val | Gly | Lys | Trp | Leu | Glu | Lys | Gln | Glu | Gln | Asp | Glu |
| | | | | 230 | | | | | 235 | | | | | 240 |
| Asp | Gly | Thr | Glu | Glu | Asp | Asn | Ser | Arg | Val | Glu | Pro | Val | Gly | His |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Ala | Asp | Thr | Gly | Leu | Glu | His | Ile | Pro | Asn | Phe | Ser | Leu | Asp | Asp |
| | | | | 260 | | | | | 265 | | | | | 270 |
| Met | Val | Lys | Leu | Val | Glu | Val | Pro | Asn | Asp | Gly | Gly | Pro | Leu | Gly |
| | | | | 275 | | | | | 280 | | | | | 285 |
| Ile | His | Val | Val | Pro | Phe | Ser | Ala | Arg | Gly | Gly | Arg | Thr | Leu | Gly |
| | | | | 290 | | | | | 295 | | | | | 300 |
| Leu | Leu | Val | Lys | Arg | Leu | Glu | Lys | Gly | Gly | Lys | Ala | Glu | His | Glu |
| | | | | 305 | | | | | 310 | | | | | 315 |
| Asn | Leu | Phe | Arg | Glu | Asn | Asp | Cys | Ile | Val | Arg | Ile | Asn | Asp | Gly |
| | | | | 320 | | | | | 325 | | | | | 330 |
| Asp | Leu | Arg | Asn | Arg | Arg | Phe | Glu | Gln | Ala | Gln | His | Met | Phe | Arg |
| | | | | 335 | | | | | 340 | | | | | 345 |
| Gln | Ala | Met | Arg | Thr | Pro | Ile | Ile | Trp | Phe | His | Val | Val | Pro | Ala |
| | | | | 350 | | | | | 355 | | | | | 360 |
| Ala | Asn | Lys | Glu | Gln | Tyr | Glu | Gln | Leu | Ser | Gln | Ser | Glu | Lys | Asn |
| | | | | 365 | | | | | 370 | | | | | 375 |
| Asn | Tyr | Tyr | Ser | Ser | Arg | Phe | Ser | Pro | Asp | Ser | Gln | Tyr | Ile | Asp |
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| Asn | Arg | Ser | Val | Asn | Ser | Ala | Gly | Leu | His | Thr | Val | Gln | Arg | Ala |
| | | | | 395 | | | | | 400 | | | | | 405 |
| Pro | Arg | Leu | Asn | His | Pro | Pro | Glu | Gln | Ile | Asp | Ser | His | Ser | Arg |
| | | | | 410 | | | | | 415 | | | | | 420 |
| Leu | Pro | His | Ser | Ala | His | Pro | Ser | Gly | Lys | Pro | Pro | Ser | Ala | Pro |
| | | | | 425 | | | | | 430 | | | | | 435 |
| Ala | Ser | Ala | Pro | Gln | Asn | Val | Phe | Ser | Thr | Thr | Val | Ser | Ser | Gly |
| | | | | 440 | | | | | 445 | | | | | 450 |
| Tyr | Asn | Thr | Lys | Lys | Ile | Gly | Lys | Arg | Leu | Asn | Ile | Gln | Leu | Lys |

| | | | | | |
|-----------------|-----|---------------------|-----|---------------------|-----|
| Lys Gly Thr Glu | 455 | Gly Leu Gly Phe Ser | 460 | Ile Thr Ser Arg Asp | 465 |
| | 470 | | 475 | | 480 |
| Thr Ile Gly Gly | 485 | Ser Ala Pro Ile Tyr | 490 | Val Lys Asn Ile Leu | 495 |
| Arg Gly Ala Ala | 500 | Ile Gln Asp Gly Arg | 505 | Leu Lys Ala Gly Asp | 510 |
| Leu Ile Glu Val | 515 | Asn Gly Val Asp Leu | 520 | Val Gly Lys Ser Gln | 525 |
| Glu Val Val Ser | 530 | Leu Leu Arg Ser Thr | 535 | Lys Met Glu Gly Thr | 540 |
| Ser Leu Leu Val | 545 | Phe Arg Gln Glu Asp | 550 | Ala Phe His Pro Arg | 555 |
| Leu Asn Ala Glu | 560 | Pro Ser Gln Met Gln | 565 | Ile Pro Lys Glu Thr | 570 |
| Ala Glu Asp Glu | 575 | Asp Ile Val Leu Thr | 580 | Pro Asp Gly Thr Arg | 585 |
| Phe Leu Thr Phe | 590 | Glu Val Pro Leu Asn | 595 | Asp Ser Gly Ser Ala | 600 |
| Leu Gly Val Ser | 605 | Val Lys Gly Asn Arg | 610 | Ser Lys Glu Asn His | 615 |
| Asp Leu Gly Ile | 620 | Phe Val Lys Ser Ile | 625 | Ile Asn Gly Gly Ala | 630 |
| Ser Lys Asp Gly | 635 | Arg Leu Arg Val Asn | 640 | Asp Gln Leu Ile Ala | 645 |
| Asn Gly Glu Ser | 650 | Leu Leu Gly Lys Thr | 655 | Asn Gln Asp Ala Met | 660 |
| Thr Leu Arg Arg | 665 | Ser Met Ser Thr Glu | 670 | Gly Asn Lys Arg Gly | 675 |
| Ile Gln Leu Ile | 680 | Val Ala Arg Arg Ile | 685 | Ser Lys Cys Asn Glu | 690 |
| Lys Ser Pro Gly | 695 | Ser Pro Pro Gly Pro | 700 | Glu Leu Pro Ile Glu | 705 |
| Ala Leu Asp Asp | 710 | Arg Glu Arg Arg Ile | 715 | Ser His Ser Leu Tyr | 720 |
| Gly Ile Glu Gly | 725 | Leu Asp Glu Ser Pro | 730 | Ser Arg Asn Ala Ala | 735 |
| Ser Arg Ile Met | 740 | Gly Glu Ser Gly Lys | 745 | Tyr Gln Leu Ser Pro | 750 |
| Val Asn Met Pro | 755 | Gln Asp Asp Thr Val | 760 | Ile Ile Glu Asp Asp | 765 |
| Leu Pro Val Leu | 770 | Pro Pro His Leu Ser | 775 | Asp Gln Ser Ser Ser | 780 |
| Ser His Asp Asp | 785 | Val Gly Phe Val Thr | 790 | Ala Asp Ala Gly Thr | 795 |
| Ala Lys Ala Ala | 800 | Ile Ser Asp Ser Ala | 805 | Asp Cys Ser Leu Ser | 810 |
| Asp Val Asp Pro | 815 | Val Leu Ala Phe Gln | 820 | Arg Glu Gly Phe Gly | 825 |
| Gln Ser Met Ser | 830 | Glu Lys Arg Thr Lys | 835 | Gln Phe Ser Asp Ala | 840 |
| Gln Leu Asp Phe | 845 | Val Lys Thr Arg Lys | 850 | Ser Lys Ser Met Asp | 855 |
| Gly Ile Ala Asp | 860 | Glu Thr Lys Leu Asn | 865 | Thr Val Asp Asp Gln | 870 |
| Ala Gly Ser Pro | | Ser Arg Asp Val Gly | | Pro Ser Leu Gly Leu | Lys |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|------|
| | | | | 875 | | | | | 880 | | | | | 885 |
| Lys | Ser | Ser | Ser | Leu | Glu | Ser | Leu | Gln | Thr | Ala | Val | Ala | Glu | Val |
| | | | | 890 | | | | | 895 | | | | | 900 |
| Thr | Leu | Asn | Gly | Asp | Ile | Pro | Phe | His | Arg | Pro | Arg | Pro | Arg | Ile |
| | | | | 905 | | | | | 910 | | | | | 915 |
| Ile | Arg | Gly | Arg | Gly | Cys | Asn | Glu | Ser | Phe | Arg | Ala | Ala | Ile | Asp |
| | | | | 920 | | | | | 925 | | | | | 930 |
| Lys | Ser | Tyr | Asp | Lys | Pro | Ala | Val | Asp | Asp | Asp | Asp | Glu | Gly | Met |
| | | | | 935 | | | | | 940 | | | | | 945 |
| Glu | Thr | Leu | Glu | Glu | Asp | Thr | Glu | Glu | Ser | Ser | Arg | Ser | Gly | Arg |
| | | | | 950 | | | | | 955 | | | | | 960 |
| Glu | Ser | Val | Ser | Thr | Ala | Ser | Asp | Gln | Pro | Ser | His | Ser | Leu | Glu |
| | | | | 965 | | | | | 970 | | | | | 975 |
| Arg | Gln | Met | Asn | Gly | Asn | Gln | Glu | Lys | Gly | Asp | Lys | Thr | Asp | Arg |
| | | | | 980 | | | | | 985 | | | | | 990 |
| Lys | Lys | Asp | Lys | Thr | Gly | Lys | Glu | Lys | Lys | Lys | Asp | Arg | Asp | Lys |
| | | | | 995 | | | | | 1000 | | | | | 1005 |
| Glu | Lys | Asp | Lys | Met | Lys | Ala | Lys | Lys | Gly | Met | Leu | Lys | Gly | Leu |
| | | | | 1010 | | | | | 1015 | | | | | 1020 |
| Gly | Asp | Met | Phe | Arg | Phe | Gly | Lys | His | Arg | Lys | Asp | Asp | Lys | Ile |
| | | | | 1025 | | | | | 1030 | | | | | 1035 |
| Glu | Lys | Thr | Gly | Lys | Ile | Lys | Ile | Gln | Glu | Ser | Phe | Thr | Ser | Glu |
| | | | | 1040 | | | | | 1045 | | | | | 1050 |
| Glu | Glu | Arg | Ile | Arg | Met | Lys | Gln | Glu | Gln | Glu | Arg | Ile | Gln | Ala |
| | | | | 1055 | | | | | 1060 | | | | | 1065 |
| Lys | Thr | Arg | Glu | Phe | Arg | Glu | Arg | Gln | Ala | Arg | Glu | Arg | Asp | Tyr |
| | | | | 1070 | | | | | 1075 | | | | | 1080 |
| Ala | Glu | Ile | Gln | Asp | Phe | His | Arg | Thr | Phe | Gly | Cys | Asp | Asp | Glu |
| | | | | 1085 | | | | | 1090 | | | | | 1095 |
| Leu | Met | Tyr | Gly | Gly | Val | Ser | Ser | Tyr | Glu | Gly | Ser | Met | Ala | Leu |
| | | | | 1100 | | | | | 1105 | | | | | 1110 |
| Asn | Ala | Arg | Pro | Gln | Ser | Pro | Arg | Glu | Gly | His | Met | Met | Asp | Ala |
| | | | | 1115 | | | | | 1120 | | | | | 1125 |
| Leu | Tyr | Ala | Gln | Val | Lys | Lys | Pro | Arg | Asn | Ser | Lys | Pro | Ser | Pro |
| | | | | 1130 | | | | | 1135 | | | | | 1140 |
| Val | Asp | Ser | Asn | Arg | Ser | Thr | Pro | Ser | Asn | His | Asp | Arg | Ile | Gln |
| | | | | 1145 | | | | | 1150 | | | | | 1155 |
| Arg | Leu | Arg | Gln | Glu | Phe | Gln | Gln | Ala | Lys | Gln | Asp | Glu | Asp | Val |
| | | | | 1160 | | | | | 1165 | | | | | 1170 |
| Glu | Asp | Arg | Arg | Arg | Thr | Tyr | Ser | Phe | Glu | Gln | Pro | Trp | Pro | Asn |
| | | | | 1175 | | | | | 1180 | | | | | 1185 |
| Ala | Arg | Pro | Ala | Thr | Gln | Ser | Gly | Arg | His | Ser | Val | Ser | Val | Glu |
| | | | | 1190 | | | | | 1195 | | | | | 1200 |
| Val | Gln | Met | Gln | Arg | Gln | Arg | Gln | Glu | Glu | Arg | Glu | Ser | Ser | Gln |
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| Gln | Ala | Gln | Arg | Gln | Tyr | Ser | Ser | Leu | Pro | Arg | Gln | Ser | Arg | Lys |
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| Asn | Ala | Ser | Ser | Val | Ser | Gln | Asp | Ser | Trp | Glu | Gln | Asn | Tyr | Ser |
| | | | | 1235 | | | | | 1240 | | | | | 1245 |
| Pro | Gly | Glu | Gly | Phe | Gln | Ser | Ala | Lys | Glu | Asn | Pro | Arg | Tyr | Ser |
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| Ser | Tyr | Gln | Gly | Ser | Arg | Asn | Gly | Tyr | Leu | Gly | Gly | His | Gly | Phe |
| | | | | 1265 | | | | | 1270 | | | | | 1275 |
| Asn | Ala | Arg | Val | Met | Leu | Glu | Thr | Gln | Glu | Leu | Leu | Arg | Gln | Glu |
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| Gln | Arg | Arg | Lys | Glu | Gln | Gln | Met | Lys | Lys | Gln | Pro | Pro | Ser | Glu |

PC-0032 US

| | | | | | | | | | | | | | | |
|-----|------|-----|------|-----|------|-----|-----|-----|------|-----|-----|-----|-----|------|
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| Gly | Pro | Ser | Asn | Tyr | Asp | Ser | Tyr | Lys | Lys | Val | Gln | Asp | Pro | Ser |
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| Tyr | Ala | Pro | Pro | Lys | Gly | Pro | Phe | Arg | Gln | Asp | Val | Pro | Pro | Ser |
| | 1325 | | | | | | | | 1330 | | | | | 1335 |
| Pro | Ser | Gln | Val | Ala | Arg | Leu | Asn | Arg | Leu | Gln | Thr | Pro | Glu | Lys |
| | 1340 | | | | | | | | 1345 | | | | | 1350 |
| Gly | Arg | Pro | Phe | Tyr | Ser | | | | | | | | | |
| | 1355 | | | | | | | | | | | | | |

<210> 3

<211> 2968

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1555118CB1

<400> 3

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| aagggg | cgct | gccg | cgag | ccc | tcc | gggc | cctc | agggt | gttt | ccc | ggg | agc | ggc | gcccc | gggtc | 60 |
| tctggg | cccca | cccg | cccc | gg | gcgt | cctc | ccg | agagt | gggg | ctgc | gccc | gc | ggg | gtc | agac | 120 |
| acctgt | tcgg | cccg | cccc | gg | cgtg | gtcg | ccc | gggg | ccagg | atgaa | agtga | ccgt | gtg | ctt | | 180 |
| cggcagg | acg | ggcat | cg | tg | ccct | gcaa | ggagg | ggcc | ag | ctgc | gcg | tcg | gcg | agct | cac | 240 |
| ccagcagg | cg | ctgc | ag | cggt | acct | gaag | acc | ggg | gaga | agg | ggc | cct | gg | tt | act | 300 |
| gattcat | cac | ttaga | aatata | cagat | gg | agg | aat | cct | ggat | ccagat | gatg | tctt | ggc | aga | | 360 |
| tg | ttg | ttg | aa | gata | aa | agaca | agct | gatt | gc | tgt | gtt | tgaa | gaaca | aga | aac | 420 |
| gattgag | agc | cccag | tgg | aa | accct | gcaga | tccg | gcag | agc | ccagat | gctt | ttgag | acaga | | | 480 |
| agtggcc | gcc | caact | gg | ctg | catt | taag | cc | aatt | gg | tgg | ggg | gagatt | gaag | taacc | cttc | 540 |
| tgctcta | aaaa | ctagg | cactc | cactg | ct | gg | t | gagg | aga | agc | ag | tgacc | ccag | tgcc | agg | 600 |
| acctgct | gat | acccag | ccaa | gcg | cttc | caca | ccct | gg | tggc | cagagt | ctga | aact | ggt | tgt | | 660 |
| tccagatt | cc | acgc | aga | act | tgg | aa | gac | ag | | aga | agt | ttt | g | aat | ggt | 720 |
| actaact | tcg | cca | aga | acta | agg | acac | att | gagt | gat | atg | aca | aga | acag | tgg | gatt | 780 |
| tgggga | agga | ggccc | att | gg | gaata | cat | gt | agt | gcc | cttc | tttt | cat | ctc | tgag | tgg | 840 |
| gattcta | gga | ctctt | cat | cc | gagg | cat | tga | agaca | acagc | aggt | cca | agc | ggg | agg | gact | 900 |
| atttcac | gaa | aatga | at | gta | ttgt | aaaa | aat | caaca | at | gtg | gat | ctc | gtag | acaaa | ac | 960 |
| tgctcag | gct | caag | at | gtct | tccg | ccag | gc | aat | gaa | atct | cca | agt | gtgc | tcct | ccac | 1020 |
| gcttcct | cca | caaaa | acc | gtg | aac | agt | at | gaa | agc | at | gaa | agc | at | gaa | agc | 1080 |
| tg | gta | ata | aat | gat | ggc | gttt | tg | aaa | accaa | agt | gccc | gct | gaa | gaa | aat | 1140 |
| actaa | agaca | gcaa | aat | ctca | cagg | aa | ccga | tagt | ctg | aa | acag | at | gcat | cag | ctt | 1200 |
| gcaaca | aaaac | aag | agt | cccc | gagt | acca | ag | gct | ggg | agga | aaacc | at | cct | ctcc | ctc | 1260 |
| ctcgc | ctctc | atggg | att | tg | gcag | caata | aa | aat | gcaa | ag | aaa | atta | aga | ttg | ac | 1320 |
| gaaagg | ccct | gaagg | act | tg | gttt | ca | ctg | ggt | tacc | aga | gact | ctt | cca | tac | at | 1380 |
| cggtcc | catt | ttt | gta | aaaa | acatt | ttt | acc | aaagg | gag | ca | gca | ata | aaa | atg | gccc | 1440 |
| acaat | cagg | g | acaga | aattt | tgg | agg | taaa | tggg | agag | at | gtc | acc | ggac | gaacc | ccag | 1500 |
| agagct | tgtg | gccat | gct | ca | ggag | cac | caa | gcagg | ggg | ag | acag | cat | cg | tggt | catt | 1560 |
| ccgcca | agaa | ggac | att | ttc | tgcccc | gaga | g | ttg | aaa | agga | gaac | ct | gact | gct | gtg | 1620 |
| ctctct | ggag | aca | agc | gagc | agct | cac | ctt | tgag | at | cccc | ct | gaat | gatt | cag | gtt | 1680 |
| tg | gct | cggg | gtg | agct | cttaa | aagg | ga | acaa | atcc | agag | aa | act | gga | acag | act | 1740 |
| ttttat | caaaa | tccat | cattc | atgg | agg | gcg | c | tgct | ttt | taag | gat | ggt | cg | tc | tg | 1800 |
| tgacc | agctg | attg | cagt | ta | atggg | gaatc | t | cttt | ttg | gga | aag | tcca | acc | acga | agct | 1860 |
| ggaa | acactt | aggc | gg | ccaa | tgt | ccat | gga | ggg | aa | acatc | cgagg | gat | ga | tcc | ag | 1920 |
| gattct | gagg | agg | ccag | aga | gacca | at | gga | ggat | cct | gca | gagt | gtg | ggg | catt | ttt | 1980 |
| gccat | gcttt | gaga | aact | gtc | aaa | atg | ctgt | aacc | acct | ct | agg | cga | aat | ata | atag | 2040 |
| cctg | cat | cca | ctt | ggc | act | tt | gcag | tcc | aca | ag | aaag | gt | ctat | tgct | gccc | 2100 |
| tgac | ggat | gg | gcc | gag | agt | g | aa | gtt | ccacc | ttct | cca | aca | ccac | att | ctg | 2160 |

PC-0032 US

```
gggcctcgaa gattacagcc acagctctgg ggtggattca gcagtatatt ttccagatca 2220
gcacatcaac ttcagatctg tgacaccggc caggcagcct gaatcaatta atttgaaagc 2280
ctcgaagagc atggaccttg tgccagatga aagcaagggt cactcattgg ctggacaaaa 2340
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caaattgaaa gtcaaggaga aaaagcgcaa agaggagaat gaagatccag aaaggaaaat 2760
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<210> 4

<211> 194

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1555118H1

<400> 4

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agcctgaatc aattaatttg aaagcctcga agagcatgga ctttgtgcca gatgaaagca 180
aggttcactc attg 194
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<210> 5

<211> 533

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 7227391H1

<400> 5

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ggaatctgga acaaccagtt tcagactctg gccaccaggt gtgaagcgct tggctgggta 60
tcagcaggtg ggcttggcac tgggtcactg cttctcctca ccagcagtgg agtgcttagt 120
tttagagcag aaggggttac ttcaatctcc ccaccaattg gcttaaagtc agccagttgg 180
gcggccactt ctgtctcaaa agcatctggg ctctgccgat ctgcagggtt tccactgggg 240
ctctcaatct tgtggagtgg ttcttgttct tcaaacacag caatcagctt gtctttatct 300
tcaacaacat ctgccaaagac atcatctgga tccaggattc ctccatctgt atattctaag 360
tgatgaatct taccaggta accaggaccc ttctcccggg tcttcaggta ccgctgcagc 420
gcctgctggg tgagctcgcc gacgcgagc tggccctcct tgcagggcac cacgatgcc 480
gtcctgccga agcacacggt cactttcatc ctggcccccg gcgaccacgc cgg 533
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<210> 6

<211> 588

<212> DNA

<213> Homo sapiens

<220>

PC-0032 US

<221> misc_feature

<223> Incyte ID No: 70158486V1

<400> 6

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ccatggacag gaggcggcac tttggttttc aaaacgccat cattattacc aaaaatgtta 60
agagagccaa tgactgactt ttcatactgt tcacggtttt gtggaggaag cacgtggagg 120
agcacacttg gagatttcat tgcctggcgg aagacatctt gagcctgagc aaagggtttg 180
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cgcttggacc tgctgttgct ttcaatgcct cggatgaaga gtcctagaat ccttccactc 300
agagatgaaa agaagggcac tacatgtatt cccaatgggc ctccctcccc agaaatctcc 360
actgttcttg tcatatcact caatgtgtcc ttagttcttg gcgaagttag tagttctgtc 420
tgtacaccat tcaaaacttc tctgtcttcc aagttctgcg tggaatctgg aacaaccagt 480
ttcagactct ggccaccagg gtgtgaagcg cttggctggg tatcagcagg tgggcctggc 540
actggggtca tgcttctcat cacaagcagt ggagtgccta gttttaga 588
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<210> 7

<211> 481

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 70162686V1

<400> 7

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gtgagggaga ggatggtttt cctcccagcc ttgggtactcg gggactcttg ttttgttgca 180
gggaagctga tgcgtctgtt tcaggactat cggttcctgt gagatttgct gtctttagtc 240
ccgattttcc atggacagga ggcggcactt tggttttcaa aacgccatca ttattaccaa 300
aaatgtttaag agagccaatg actgactttt catactgttc acggttttgt ggaggaaagc 360
acgtggagga gcacacttgg agatttcatt gcctggcgga agacatcttg agcctgagca 420
aaggttttgt ctacgagatc cacattgttg atttttacaa tacattcatt ttcgggaaat 480
a 481
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<210> 8

<211> 355

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 70151326V1

<400> 8

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ggagcagcaa taaaagatgg ccgcctacaa tcaggggaca gaattttgga ggtaaagg 120
agagatgtca ctggacgaac ccaggaagag cttgtggcca tgctcaggag caccaagcag 180
ggggagacag catcgctggt cattgcccgc caagaaggac attttctgcc ccgagagttg 240
aaaggagaac ctgactgctg tgcactctct ctggagacaa gcgagcagct cacctttgag 300
aatccccctg gatgattcag gttctgctgg cctcgggggtg agcttaaaag ggaac 355
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<210> 9

<211> 417

<212> DNA

<213> Homo sapiens

PC-0032 US

<220>

<221> misc_feature

<223> Incyte ID No: 70154198V1

<400> 9

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gctgtaatct tcgaggccca atcccagagc agaatgtggt gttggagaag gtggaacttc 60
actctcggcc catccgtcat tgggcagcaa tagacctttc tgtttgcctt gtggactgca 120
agtgccaaagt ggatgcagga tactattatc atttcgccta gaggtgggta cagcattttg 180
acagtttctca aagcatgggt tggaaaatgc cccacactct gcaggatcct ccattgggtct 240
ctctggcctc ctcagaatca ccaactggat catccctcgg atggttccct ccattggacat 300
tggccgccta agtgtttcca tagcttcgtg gttggacttc ccaaaagaga ttccccatta 360
cggcaatcac tggtcattca tttgcagacg accatccttt aaagcagcgc cttcacg 417
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<210> 10

<211> 537

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 2084238T6

<400> 10

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tcagagctcc ttggccagag tgagagctct tatcagacag accgtcagct tctatttctt 180
caggccatc gtaggatttg tcaatggctg ctctaaagct ctcatgacg cctcggcctc 240
gaaccatgtg cggccggggc ctgtgaaagg gaaggtcatt ctctctgacc tcggccactg 300
cagtctgcag actctccaag gagctggact ttttcaaacc cagagttgga ccaaaatctt 360
tgcttgagga ttccgatttt tgtccagcca atgagtgaac cttgctttca tctggcacia 420
ggtccatgct cttcgaggct ttcaaattaa ttgattcagg ctgctggccg gtgtcacaga 480
tctgaagttg atgtgctgat ctggaaaata tactgctgaa tccacccag agtgtgg 537
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<210> 11

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 70155923V1

<400> 11

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cctttctgga tcttcattct cctcttggcg ctttttctcc ttgactttca atttgccctt 60
tcccttttcc ttctccttct ctttcgtttt tttgactttc ctggcttaat ttcccatgtc 120
ctctagctcc gaattccctt gaggggcaga ctcacaattc agagctcctt ggccagagtg 180
aaagctctta tcagacagac cgtcagcttc aatttcttaa ggtccatcgt aggatttgca 240
aatggctgct ctaaagctct cattgaagcc tcggcctcga accatgtgcg gccggggcct 300
ttgaaaggga aggtcattct tcctgacctc ggccactgca gtttgacagc tctccaagga 360
gctggacttt tctaaacca gagttggccc aaaatctttg cttggaaatt ccgatttttg 420
tccagccaat gagtgaacct tgctttcatc tggcaccagg tccatgccct tcggggcctt 480
caaattaatt ggattcag 498
```

<210> 12

<211> 498

<212> DNA

PC-0032 US

<213> Rattus norvegicus

<220>

<221> misc_feature

<223> Incyte ID No: 702457609T1

<400> 12

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tggccccgtcg taagatttgt caatggctgc tcgagaagct ctcattgcag ccccgggcgt 180
cgcaccatgt gtggtctggg tctgtggaag ggcagatcat tcttcctgac ttcagccaca 240
gcagtctgta ggctctccaa ggaactggac tttttcaggc ccagggttgg accaaaatct 300
ttgcctggag agtctgacct gcgatcagcc agtgactgga ctttgctttc gtctggcaca 360
aggtccatgc tcttggaggc tttcaggtta attgattcgg gctgcccagc gtggtgtcac 420
aattctgaaa ttgacatgtt gatctggaaa atatcctgtg gaatccactc tagagctgtg 480
actgaagtct tcaaggcc
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<210> 13

<211> 460

<212> DNA

<213> Rattus norvegicus

<220>

<221> misc_feature

<223> Incyte ID No: 702458746T1

<400> 13

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gtcgtaaagt ttgtcaatgg ctgctcggaa gctctcattg cagccccggc ctgcgaccat 120
gtgtggtctg ggtctgtgga agggcagatc attctcctg acttcagcca cagcagctcg 180
taggctctcc aaggaactgg actttttcag gcccagggtt ggacaaaaat ctttgcttgg 240
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gctcttgagg gctttcaggt taattgattc gggctgcccc actggtgtca caattctgaa 360
attgacatgt tgatctggaa aatatacctgt ggaatccact ctagagctgt gactgaagtc 420
ttcaaggccc cattccagac tgggatgtgg tggcggggac
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<210> 14

<211> 245

<212> DNA

<213> Rattus norvegicus

<220>

<221> misc_feature

<223> Incyte ID No: 701335936H1

<400> 14

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ggtcccattt ttgtaaaaaa taccctacca aaggagcag cagtaaagga tggccgccta 120
caatcaggag acagaatttt agaggtaaat ggcagagatg tcacaggaag aaccaggaa 180
gaacttgtgg ccatgctgag gagcactaag caggagaga cggtatcact ggtcattgcc 240
cgcca
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<210> 15

<211> 260

<212> DNA

<213> Rattus norvegicus

PC-0032 US

<220>

<221> misc_feature

<223> Incyte ID No: 700639694H1

<400> 15

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tggctgaagt caggaagaat gatctgccct tccacagacc cagaccacac atgggtgcgag 120
gccgggggctg caatgagagc ttccgagcag ccattgacaa atcttacgac gggccagaag 180
aggcagaagc tgatgggtctg tctgataaga gctctcgctc gggccacaca gctctgaatt 240
gtgagtctgc ccctcagggg                                260
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<210> 16

<211> 211

<212> DNA

<213> Rattus norvegicus

<220>

<221> misc_feature

<223> Incyte ID No: 700639694F6

<400> 16

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ttccgagcag ccattgacaa atcttacgac gggccagaag aggcagaagc tgatgggtctg 120
tctgataaga gctctcgctc gggccacaca gctctgaatt gtgagtctgc ccctcagggg 180
aaccctgagc tagatgatgt ggaaaataaa g                                211
```

<210> 17

<211> 276

<212> DNA

<213> Rattus norvegicus

<220>

<221> misc_feature

<223> Incyte ID No: 701191467H1

<400> 17

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ctatagtcca caagataaaa ggaaagacct attgcttccc agtgatgggt gggctgagaa 60
tgaagtaccg ccgtccccgc caccacatcc cagctctggaa tggggccttg aagacttcag 120
tcacagctct agagtggatt cacaggatat ttccagatc accatgtcaa tttcagaatt 180
gtgacaccag tcgggcagcc cgaatcaatt aacctgaaag cctccaggag catggacctt 240
gtgccagacg aaagcaaagt ccagtcactg gctgat                                276
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<210> 18

<211> 555

<212> DNA

<213> Canis familiaris

<220>

<221> misc_feature

<223> Incyte ID No: 702771158H1

<400> 18

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caggccccga gggggcagcc cagaccagta cccctaccgc gcccaggatc ccaggcagaa 120
gaaccccatg actgcagccg tgtagctgaa taccaccgag ctacagccag cccagaaggg 180
cgacatctga catcaccttc gccctcccta gactcttaag gccttctctc tgtccagaag 240
```

PC-0032 US

```
tctccatggt acagataggt tttgctcacc gaggttgcaa cacttgactg ctgaccagag 300
gggaaaagga gaggacagga ggggtgggaga gaaaggacag gaggcacaaa gacagcactg 360
cctgggattt gaaatatgtt tagaatctct cagttgaggg caagtggcag ttgagcaggc 420
aaataccaat ggagacatag cacacggggc ctccctggcg tacaccattc ataacttctc 480
catcttctaa gttctgtgtg gaatctagaa taacagggtt cagactctgg ccactggggg 540
gtgaagcact tggct 555
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<210> 19

<211> 257

<212> DNA

<213> Mus musculus

<220>

<221> misc_feature

<223> Incyte ID No: 701266650H1

<400> 19

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tgtggaacca gagattcttc tatacatggt cctgggtccca tttctgtaaa aaacatctta 120
ccaaaaggag cagcagtaaa ggatggccgc ctacaatcag gggacagaat tttggaggta 180
aatggcagag atgttacagg aagaacccaa gaagaactcg tggccatgtt aaggagcacc 240
aagcagggag agacagt 257
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<210> 20

<211> 5689

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 2582063CB1

<400> 20

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gatccaaaact actggataca ggtgcatcgc ttggaacatg gagatggagg aatactagac 180
cttgatgaca ttcttttgta tgtagcagac gataaagaca gactggtagc agtgtttgat 240
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ccagagatat ttggtagtga gcttggcacc aacaatgtct cagcctttca gccttacc 360
gcaacaagtg aaattgaggt cacaccttca gtccttcgag caaatatgcc tcttcatgtt 420
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aagcagaaca ctgctgggag tcctaaaacc tgcgacagga agaaagatga aaactacaga 600
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gcaaataaag agcagtatga acaactatcc caaagtgaga agaacaatta ctattcaagc 1140
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ctacctcata gcgcacaccc ctccgggaaa ccaccatccg ctccagcctc ggcacctcag 1320
aatgtattta gtacgactgt aagcagtggt tataacacca aaaaaatagg caagaggctt 1380
```

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| aatatccagc | ttaagaaagg | tacagaaggt | ttgggattca | gcataccttc | cagagatgta | 1440 |
| acaatagggtg | gctcagctcc | aatctatgtg | aaaaacattc | tcccccgggg | ggcggccatt | 1500 |
| caggatggcc | gacttaagcc | aggagacaga | cttatagagg | taaattggagt | agatttagtg | 1560 |
| ggcaaatccc | aagagggaagt | tgtttcgctg | ttgagaagca | ccaagatgga | aggaactgtg | 1620 |
| agccttctg | tctttcgcca | ggaagacgcc | ttccacccaa | gggaactgaa | tgcagagcca | 1680 |
| agccagatgc | agattccaaa | agaaacgaaa | gcagaagatg | aggatattgt | tcttacacct | 1740 |
| gatggcacca | gggaatttct | gacatttgaa | gtcccactta | atgattcagg | atctgcaggc | 1800 |
| cttggtgtca | gtgtcaaaagg | taaccggtca | aaagagaacc | acgcagattt | gggaatcttt | 1860 |
| gtcaagtcca | ttattaatgg | aggagcagca | tctaaagatg | gaaggcttcg | ggtgaatgat | 1920 |
| caactgatag | cagtaaatgg | agaatccctg | ttgggcaaga | caaaccaaga | tgccatggaa | 1980 |
| accctaagaa | ggtctatgtc | tactgaaggc | aataaacgag | gaatgatcca | gcttattgtt | 2040 |
| gcaaggagaa | taagcaagtg | caatgagctg | aagtcacctg | ggagccccc | tggacctgag | 2100 |
| ctgcccattg | aaacagcgtt | ggatgataga | gaacgaagaa | tttcccatc | cctctacagt | 2160 |
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| atagaagatg | acaggttgcc | agtgttcct | ccacatctct | ctgaccagtc | ctcttcagc | 2340 |
| tcccatgatg | atgtgggggt | tgtgacggca | gatgctggta | cttgggcca | ggctgcaatc | 2400 |
| agtgattcag | ccgactgctc | tttgagtcca | gatgttgatc | cagttcttgc | ttttcaacga | 2460 |
| gaaggatttg | gacgtcagag | tatgtcagaa | aaacgcacaa | agcaattttc | agatgccagt | 2520 |
| caattggatt | tcgttaaaac | acgaaaatca | aaaagcatgg | atttaggtat | agctgacgag | 2580 |
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| actttgaatg | gggatattcc | tttccatcgt | ccacggccgc | ggataatcag | aggcagggga | 2760 |
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| gatgatgaag | gcatggagac | cttgggaaga | gacacagaag | aaagttcaag | atcagggaga | 2880 |
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| gtagacagta | acagatcaac | tcctagcaat | catgatcgga | tacagcgtct | gaggcaagaa | 3480 |
| tttcagcaag | caaagcaaga | tgaagatgta | gaagatcgtc | ggcggaccta | tagttttgag | 3540 |
| caaccctggc | cgaacgcacg | gccggcgacg | cagagcgggc | gacactcggg | gtccgtggag | 3600 |
| gtgcagatgc | agcggcagcg | gcaggaggag | cgcgagagct | cccagcaggc | ccagcggcag | 3660 |
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| agctaccaag | gctccaggaa | cggctacctg | ggaggacatg | gcttcaacgc | cagggctcatg | 3840 |
| ctggaaactc | aggagctcct | tcgccaggaa | cagaggcgga | aggagcagca | gatgaagaag | 3900 |
| cagcctcctt | ccgaggggcc | cagcaactat | gactcgtata | agaaagtcca | ggacccagct | 3960 |
| tacgcccctc | ccaaggggcc | cttcgggcaa | gatgtgcccc | cctccccttc | tcaggttgcg | 4020 |
| aggctgaaca | gacttcagac | tcctgagaaa | gggaggccct | tctattcctg | agcacgcaaa | 4080 |
| taacggatgc | ttcatgtcgc | gcaataaaag | acattttcct | atgaagactt | gtattttggg | 4140 |
| agttttttta | aaacctcgat | ggtactatgg | agtattttctg | ttgttggtat | cagtgccttt | 4200 |
| aagcgtgtga | ggcaaagaaa | tggaaaggcct | taatgtcttt | gccactatgt | ctcaagtgtc | 4260 |
| tgtttcatgg | aaggatttcc | caccctgtga | caatcatctg | tttgagggtg | tcatatgtct | 4320 |
| tgcgctctc | cacagtacca | ggaatctcgg | ccctactcat | gagttgtccg | cggcttggtt | 4380 |
| gtaacatccc | tgcaccactt | gcagtgacaa | attcacctga | agtggaggat | gacgtgcggc | 4440 |
| cctgtttctc | cctctaagtt | ctcttagcta | tgggatgaca | tcttagtctc | tggtggagga | 4500 |
| aaagtgggcg | acatacacca | aaaattgggg | ctttctggta | cttcacagca | cagccatttg | 4560 |
| tcgtactttg | tcatactgt | ggttttctct | ttcctttctc | agctctttgt | gacgggagag | 4620 |
| tcggtcatcc | tattacagaa | gctaagccat | agtccaacat | tgtttggtca | ccatgggggt | 4680 |
| ccttttgtaa | ctgccttatg | actcaacatt | accaataaag | tgatgatcct | ggtctgcgtt | 4740 |

PC-0032 US

```
tatacatcacg cttgttcggt cctgttcctg acacgtgggt tgagtcacca cagctctgtg 4800
tggggaacgt gggagacagg agtggctcct gccgggggaa gctgggcctg ccattggccc 4860
tgtgtctatc atgaggggag agctaagaaa gaaattctcc taggaagagc tcatggccca 4920
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gaatgggaca gagataaacc agacagtcac tttgatctgc tctctacggt ttttcaagtc 5040
agaggcaatt gatgcttgct taatgcatcc acacactgca tgtctgactg gcgatgccac 5100
gctcctaagt agttctgcca tgaaacataa aagacaaagg aaaagccgtt acacatcaca 5160
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ggatgacagt ggctctttct cacagcctcc cctgagctgt gagaaacagc tttctctgta 5640
catatgcaac tcctaataaa aggcataatt cttcctgtta aaaaaaaaaa 5689
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<210> 21

<211> 249

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 2582063H1

<400> 21

```
cagcgggtggt ggcaggaagc tcactctcgc gtcagtatta gagtgtgtgt gtgggtctcg 60
gggatctcgg tggctcccat cttccttcat tgttctgaac atcctgtatt gtaaaccatg 120
gctgggggtgc taaagtgcct gtgaatcccg atgtggaaaa agctggagggt gaaagctcag 180
cataccatgt atttacttta aaaacagaaa aaaagacatg tatggatatg tctatttttt 240
ttttattgg 249
```

<210> 22

<211> 549

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 7246093H1

<400> 22

```
cccgggtggt cgtgccgtgc ggggacggcc acatgaaagt ttccagcctc atccagcagg 60
cgggtgacccg ctaccggaag gccatcgcca aggatccaaa ctactggata cagggtgcac 120
gcttggaaca tggagatgga ggaatactag accttgatga cattctttgt gatgtagcag 180
acgataaaga cagactggta gcagtgtttg atgagcagga tccacatcac ggaggtgatg 240
gcaccagtgc cagttccacg ggtaccaga gccagagat atttggtagt gagcttgga 300
ccaacaatgt ctacgccttt cagccttacc aagcaacaag tgaaattgag gtcacacctt 360
cagtccttcg agcaaatatg cctcttcatg ttccagcgag tagtgacca gctctaattg 420
gcctctccac ttctgtcagt gatagtaatt tttcctctga agagccttca aggaaaaatc 480
ccacacgctg gtcaacaaca gctggcctcc tcaagcagaa cactgctggg agtcctaaaa 540
cctgcgaca 549
```

<210> 23

<211> 502

PC-0032 US

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 7978420H1

<400> 23

```
ggggagccca gagatatttg gtagtgagct tggcaccaac aatgtctcag cctttcagcc 60
ttaccaagca acaagtgaaa ttgaggtcac accttcagtc cttcgagcaa atatgcctct 120
tcattgttcga cgcagtagtg acccagctct aattggcctc tccacttctg tcagtgatag 180
taatttttcc tctgaagagc cttcaaggaa aaatcccaca cgctgggtcaa caacagctgg 240
cttcctcaag cagaacactg ctgggagtcc taaaacctgc gacaggaaga aagatgaaaa 300
ctacagaagc ctcccgcggg atactagtaa ctggtctaac caatttcaga gagacaatgc 360
tcgctcgtct ctgagtgcc gtcacccaat ggtgggcaag tggctggaga aacaagaaca 420
ggatgaggat gggacagaag aggataacag tcgtgttgaa cctgttggac atgctgacac 480
gggtttggag catataccca ac                                     502
```

<210> 24

<211> 611

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 55040412H1

<400> 24

```
gctgtgcatg aagacgggac agaagaggat aacagtcgtg ttgaacctgt tggacatgct 60
gacacggggtt tggagcatat acccaacttt tctctggatg atatggtaaa gctcgagaa 120
gtccccaacg atggaggggcc tctgggaatc catgtagtgc ctttcagtgc tcgaggcggc 180
agaaccctgg gggtattagt aaaacgattg gagaaagggtg gtaaagctga acatgaaaat 240
ctttttcgtg agaatgattg cattgtcagg attaatgatg gcgaccttcg aaatagaaga 300
tttgaacaag cacaacatat gtttcgccaa gccatgcgta caccatcatc ttggttccat 360
gtgggttcctg cagcaaataa agagcagtat gaacaactat cccaaagtga gaagaacaat 420
tactattcaa gccgttttag ccctgacagc cagtatattg acaacaggag tgtgaacagt 480
gcagggctgc acacgggtgca gagagcacc cgaactgaacc acccgctga gcagatagac 540
tctactcaa gactacctca tagcgcacac ccctcgggaa aaccaccatc cgctccatcc 600
tcattggacag c                                     611
```

<210> 25

<211> 462

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 2929484F6

<220>

<221> unsure

<222> 405, 441

<223> a, t, c, g, or other

<400> 25

```
gagcaccctg actgaaccac ccgcctgagc agatagactc tcaactcaaga ctacctcata 60
```


PC-0032 US

```
gcgcacaccc ctcgggaaaa ccaccatccg ctccagcctc ggcacctcag aatgtattta 120
gtacgactgt aagcagtggg tataacacca aaaaaatagg caagaggctt aatatccagc 180
ttaagaaagg tacagaaggt ttgggattca gcatcacttc cagagatgta acaatagggtg 240
gctcagctcc aatctatgtg aaaaacattc tccccggggg ggcggccatt caggatggcc 300
gacttaaggc aggagacaga cttatagagg taaatggagt agatttagtg ggccaatccc 360
aagaggaagt tgtttcgctg ttgagaagca ccaagatgga aggantgtga gcttctggtc 420
tttcgccagg aagacgcttc naccgaaggg aactgaatgc ag 462
```

<210> 26

<211> 375

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 5627320R8

<400> 26

```
acactgcgtg gttctctttt gaccggttac ctttgacact gacaccaagg cctgcagatc 60
ctgaatcatt aagtgggact tcaaagtcca gaaatccct ggtgccatca ggtgtaagaa 120
caatatcctc atcttctgct ttcgtttctt ttggaatctg catctggctt ggatctgcat 180
tcagttccct tgggtggaag gcgtcttccct ggcgaaagac cagaaggctc acagttcctt 240
ccatcttggt gcttctcaac agcgaaacaa cttcctcttg ggatttgccc actaaatcta 300
ctccatttac ctctataagt ctgtctcctg acttaagtcg gccatcctga atggccgccc 360
ccgggggaga atggt 375
```

<210> 27

<211> 543

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 3209128F6

<400> 27

```
cgccttccac ccaaggggaac tgaaagcaga agatgaggat attgttctta cacctgatgg 60
caccaggaaa tttctgacat ttgaagtccc acttaatgat tcaggatctg caggccttgg 120
tgtcagtgtc aaaggtaacc ggtcaaaaga gaaccacgca gatttgggaa tctttgtcaa 180
gtccattatt aatggaggag cagcatctaa agatggaagg cttcgggtga atgatcaact 240
gatagcagta aatgggagaat ccctgttggg caagacaaac caagatgcca tggaaaccct 300
aagaaggctc atgtctactg aaggcaataa acgaggaatg atccagctta ttgttgcaag 360
gagaataagc aagtgcaatg agctgaagtc acctgggagc ccccctggac ctgagctgcc 420
cattgaaaca gcgttggatg atagagaacg aagaatttcc cattccctct acagtgggat 480
tgaggggctt gatgaatcgg ccagcagaaa tgctggcctc agtaggataa tgggtgagtc 540
agg 543
```

<210> 28

<211> 220

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 349248H1

PC-0032 US

<220>

<221> unsure

<222> 167

<223> a, t, c, g, or other

<400> 28

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| aatatgcccc | aagatgacac | tgtcattata | gaagatgaca | ggttgccagt | gcttcctcca | 60 |
| catctctctg | accagtcctc | ttccagctcc | catgatgatg | tggggtttgt | gacggcagat | 120 |
| gctgggtactt | gggccaaggc | tgcaatcagt | gattcagccg | actgctnttt | gagtccagat | 180 |
| gttgatccag | ttcttgcttt | tcaacgagaa | ggatttggac | | | 220 |

<210> 29

<211> 613

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 7019961H1

<400> 29

| | | | | | | |
|-------------|-------------|-------------|------------|------------|-------------|-----|
| gtgcttcctc | cacatctctc | tgaccagtcc | tcttccagct | cccatgatga | tgtgggggttt | 60 |
| gtgacggcag | atgctgggtac | ttggggccaag | gctgcaatca | gtgattcagc | cgactgctct | 120 |
| ttgagtccag | atgttgatcc | agttcttgc | tttcaacgag | aaggatttgg | acgtcagagt | 180 |
| atgtcagaaa | aacgcacaaa | gcaattttca | gatgccagtc | aattggattt | cgttaaaaca | 240 |
| cgaaaaatcaa | aaagcatgga | tttaggtata | gctgacgaga | ctaaactcaa | tacagtggat | 300 |
| gaccagaaaag | caggttctcc | cagcagagat | gtgggtcctt | ccctgggtct | gaagaagtca | 360 |
| agctcgttgg | agagtctgca | gaccgcagtt | gccgaggtga | ctttgaatgg | ggatattcct | 420 |
| ttccatcgtc | cacggccgcg | gataatcaga | ggcaggggat | gcaatgagag | cttcagagct | 480 |
| gccatcgaca | aatcttatga | taaaccgcg | gtagatgatg | atgatgaagg | catggagacc | 540 |
| ttggaagaag | acacagaaga | cagttcacga | tcagggagag | agtctgtatc | cacagccagg | 600 |
| atcaggcttc | cac | | | | | 613 |

<210> 30

<211> 249

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 6303175H2

<400> 30

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tcgcgatcta | gaacaaagaa | aagaagaaag | atagagataa | ggagaaggat | aaaatgatag | 60 |
| ccaagaagg | aatgctgaag | ggcttgggag | acatgttcag | gtttggcaaa | catcgaaaag | 120 |
| atgacaagat | tgagaaaacg | ggtaaaataa | aaatacagga | atcctttaca | tcagaagagg | 180 |
| agaggatacg | aatgaagcag | gagcaggaga | ggattcaagc | caaaactcga | gaatttaggg | 240 |
| aacgacaag | | | | | | 249 |

<210> 31

<211> 501

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

PC-0032 US

<223> Incyte ID No: 2549906F6

<220>

<221> unsure

<222> 137, 164, 463

<223> a, t, c, g, or other

<400> 31

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aggagaagga taaaatgaaa gccagaagga gaatgctgaa gggcttggga gacatgttca 60
ggtttgcaac acatcgaaaa gatgacaaga ttgagaaaac gggtaaaata aaaatacagg 120
aatcctttac atcagangag gagaggatac gaatgaagca ggancaggag aggattcaag 180
ccaaaactcg agaatttagg gaacgacaag ctcgagagcg tgactatgct gaaattcaag 240
attttcatcg gacatttggc tgtgatgatg agttaatgta tgggggagtt tcttcttatg 300
aagggtccat ggctctcaac gctagacctc agagcccacg agaagggcat atgatggatg 360
ctttgtatgc ccaagtcaag aagccgcgga attccaaacc ctcacctgta gacagtaaca 420
gatcaactcc tagcaatcat gatcggatac agcgtctgag gcnagaattt cagcaagcaa 480
agcaagatga agatgtagaa g                                     501
```

<210> 32

<211> 265

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1945452H1

<400> 32

```
gttccatggc tctcaacgct agacctcaga gccacgaga agggcatatg atggatgctt 60
tgtatgccca agtcaagaag ccgcggaatt ccaaaccctc acctgtagac agtaacagat 120
caactcctag caatcatgat cggatacagc gtctgaggca agaatttcag caagcaaagc 180
aagatgaaga tgtagaagat cgtcggcgga cctatagttt tgagcaacctc tggccgaacg 240
cacggccggc gacgcagagc gggcg                                     265
```

<210> 33

<211> 469

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 2549906T6

<220>

<221> unsure

<222> 77, 194, 196, 441, 466

<223> a, t, c, g, or other

<400> 33

```
gttatttgcg tgctcaggaa tagaagggcc tccctttctc aggagtctga agtctgttca 60
gcctcgcaac ctgaganggg gaggggggca catcttgccg gaagggcccc ttgggagggg 120
cgtaactggg gtccctggact ttcttatacg agtcatagtt gctgggcccc tcggaaggag 180
gctgcttctt catnancgtc tccttccgcc tctgttcctg gcgaaggagc tcctgagttt 240
ccagcatgac cctggcggtg aagccatgtc ctcccaggta gccgttcctg gagccttggt 300
agctggagta cctgggggtt tctttggcac tctggaagcc ttccccaggg gagtagttct 360
gtccccaaga gtccctgggag accgagctgg catttttctc gctttgccga ggcagagagc 420
```

PC-0032 US

tgtactggcg ctgggcctgt ngggagtctc gcgctectcc tgccgntgc

469

<210> 34

<211> 558

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 71009002V1

<400> 34

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| caggcccagc | gccagtacag | ctctctgcct | cggcaaagca | ggaaaaatgc | cagctcggtc | 60 |
| tcccaggact | cttgggagca | gaactactcc | cctggggaag | gcttccagag | tgccaaagag | 120 |
| aaccccaggt | actccagcta | ccaaggctcc | aggaacggct | acctgggagg | acatggcttc | 180 |
| aacgccaggt | catgctggaa | actcaggagc | tccttcgcca | ggaacagagg | cggaaggagc | 240 |
| agcagatgaa | gaagcagcct | ccttccgagg | ggcccagcaa | ctatgactcg | tataagaaaag | 300 |
| tccaggaccc | cagttacgcc | cctcccaagg | ggcccttccg | gcaagatgtg | ccccctccc | 360 |
| cttctcaggt | tgcgaggctg | aacagacttc | agactcctga | gaaagggagg | cccttctatt | 420 |
| cctgagcacg | caaataacgg | atgcttcatg | tcgcgcaata | aaagacattt | tcctatgaag | 480 |
| acttgatttc | cgggagtttt | ttaaaaacct | cgatggtact | atggagtata | ctggtcgtgg | 540 |
| tatcagtgcc | tttaagcg | | | | | 558 |

<210> 35

<211> 632

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 71008521V1

<220>

<221> unsure

<222> 605

<223> a, t, c, g, or other

<400> 35

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ttccccacac | agagctgtgg | tgactcaacc | cacgtgtcag | gaacaggacc | gaacaagcgt | 60 |
| atgtataaac | gcagaccagg | atcatcactt | tattggtaat | gttgagtcac | aaggcagtta | 120 |
| caaaaggacc | cccatggtga | ccaaacaatg | ttggactatg | gcttagcttc | tgtaatagga | 180 |
| tgaccgactc | tcccgtcaca | aagagctgag | aaaggaaaga | gaaaaccaca | gtgatgacaa | 240 |
| agtacgacaa | atggctgtgc | tgtgaagtac | cagaaagccc | caatttttgg | tgtatgtcgc | 300 |
| ccacttttcc | tccaccagag | actaagatgt | catcccatag | ctaagagaac | ttagagggag | 360 |
| aaacagggcc | gcacgtcatc | ctccacttca | ggtgaatttg | tcactgcaag | tggtgcaggg | 420 |
| atgttacaac | caagccgcgg | acaactcatg | agtagggccg | agattcctgg | tactgtggag | 480 |
| aggcgagag | catatgaaca | cctcaaacag | atgattgtca | cagggtggga | aatccttcca | 540 |
| tgaaacagac | acttgagaca | tagtggcaaa | gacattaagg | ccttccattt | ctttgcctac | 600 |
| accgnttaaa | ggcactgata | ccaacaacag | aa | | | 632 |

<210> 36

<211> 646

<212> DNA

<213> Homo sapiens

<220>

PC-0032 US

<221> misc_feature

<223> Incyte ID No: 71010168V1

<400> 36

```
cttcctagga gaattttcttt cttagctctc ccctcatgat agacacaggg ccaatggcag 60
gccagcttc ccccggcagg agccactcct gtctcccacg ttccccacac agagctgtgg 120
tgactcaacc cacgtgtcag gaacaggacc gaacaagcgt atgtataaac gcagaccagg 180
atcatcactt tattggtaat gttgagtcac aaggcagtta caaaaggacc cccatgggtga 240
ccaaacaatg ttggactatg gcttagcttc tgtaatagga tgaccgactc tcccgtcaca 300
aagagctgag aaaggaaaga gaaaaccaca gtgatgacaa agtacgacaa atggctgtgc 360
tggtgaagta ccagaaagcc ccaatttttg gtgtatgtcg ccacttttcc ctccaccaga 420
gactaagatg tcattccata gctaagagaa cttagagggg gaaacagggc cgcacgtcat 480
cctccacttc aggtgaattt gtcactgcaa gtggtgcagg gatgttataa ccaagccgcg 540
gacaactcat gagtagggcc gagattcctg gtactgtgga gaggcgcaga gcatatgaac 600
acctcaaaca gatgatgtcc cagggtggga aatccttcca tgaaac 646
```

<210> 37

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 70090181V1

<400> 37

```
agctttcacc tccagctttt tccacatcgg gattcacagg caatttagca cccagccat 60
ggtttacaat acaggatgtt cagaacaatg aaggaagatg ggagccaccg agatccccga 120
gaccacaca cacactctaa tactgacgcg agagtgaact tcctgccacc accgctgtgg 180
gacccgaaaa tggtctctgt gtgatgtgta acggcttttc ctttgtcttt tatgtttcat 240
ggcagaacta cttaggagcg tggcatcgcc agtcagacat gcagtgtgtg gatgcattag 300
acaagcatca attgcctctg acttgaaaaa ccgtagagag cagatcaaaa tgactgtctg 360
gtttatctct gtcccattct gtgcccttcc tgacaagctg tcagaacaaa aactaattaa 420
aataattact aggatgtact gggccatgag ctcttcctag gagaaattct ttcttagctc 480
tcccctcatg atagacac 498
```

<210> 38

<211> 572

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 6833928H1

<400> 38

```
cttgtcagga agggcacaga atgggacaga gataaaccag acagtcattt gatctgctct 60
ctacggtttt tcaagtcaga ggcaattgat gcttgtctaa tgcattccaca cactgcatgt 120
ctgactggcg atgccacgct cctaagtagt tctgccatga aacataaaaag acaaaggaaa 180
agccgttaca catcacacag agaacatttt cgggtcccac agcgggtggtg gcaggaagct 240
cactctcgcg tcagtattag agtgtgtgtg tgggtctcgg ggatctcggg ggctcccatc 300
ttccttcatt gttctgaaca tcctgtattg taaaccatgg ctggggtgct aaagtgcctg 360
tgaatcccga tgtggaaaaa gctggagggt aaagctcagc ataccatgta ttacttttaa 420
aaacagaaaa aaagacatgt atggatatgt ctattttttt tttatgggca catggtattt 480
ttgtgtggac ttgttttttag aaatgatgtg tccacacacg taccgtgtgc tcttctgcat 540
ttctgtgtca tggctctggt tcttaatcac gt 572
```

PC-0032 US

<210> 39
<211> 550
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 70089663V1

<400> 39
gctcataagt agttctgcc tgaacataa aagacaaagg aaaagccgtt acacatcaca 60
cagagaacat tttcgggtcc cacagcgggt gtggcaggaa gctcactctc gcgtcagtat 120
tagagtgtgt gtgtgggtct cggggatctc ggtggctccc atcttccttc attgttctga 180
acatcctgta ttgtaaacca tggctggggt gctaaagtgc ctgtgaatcc cgatgtggaa 240
aaagctggag gtgaaagctc agcataccat gtatttactt taaaaacaga aaaaaagaca 300
tgtatggata tgtctatatt ttttttattg gcacattgta tttttgtgtt gacttgtttt 360
tagaaatgat gtgtccacac acgtaccctg gtctcttctg catttctgtg tcatggttct 420
gtttcttaat cacgtgcggc ggtgtctaag tgggtgttacc agtgtacgcg cagtgcacct 480
ggatgacagt ggctcttgct cacagcctcc cctgagctgt gagacacagc tttctctgta 540
catatgcaac 550

<210> 40
<211> 514
<212> DNA
<213> Rattus norvegicus

<220>
<221> misc_feature
<223> Incyte ID No: 702231139H1

<400> 40
aagcaatttt caaatgccag tcaattggat ttcgttaaaa cagaaaatc aaaaagcatg 60
gatttaggta tagctgacga gaactaaact caatacagt gatgaccaga gagcaggctc 120
ccccaataga gatgtgggac cctccttggg tctgaagaaa tccagctctt tagaaagtct 180
gcagacggct gttgctgagg tgaccctgaa tgggaacatt cttttccacc gccacggcc 240
acgaatcatc cgaggaagg gctgcaacga gagcttcaga gccgccattg acaagtccta 300
cgataagccc atgggtggat acgacgacga aggcattggag accttggaa aagacacaga 360
agaaagttca aggtcaggga gggagtcctg gtccacgtcc agtgatcagc cttcctattc 420
tctggagaga caaatgaatg gagaccaga gaagaggga aaggcagaga agaaaaagga 480
caaagccgga aaggataaga agaaagaccg agag 514

<210> 41
<211> 544
<212> DNA
<213> Rattus norvegicus

<220>
<221> misc_feature
<223> Incyte ID No: 700273304F6

<400> 41
cctgaatggg aacattcctt tccaccgccc acggccacga atcatccgag gaaggggctg 60
caacgagagc ttcagagccg ccattgacaa gtcctacgat aagcccatgg tggatgacga 120
cgacgaaggc atggagacct tggaagaaga cacagaagaa agttcaaggt cagggaggga 180
gtccgtgtcc acgtccagt atcagccttc ctatttctct gagagacaaa tgaatggaga 240
cccagagaag agggacaagg cagagaagaa aaaggacaaa gccggaagg ataagaagaa 300

PC-0032 US

agaccgagag aaggagaagg ataaactgaa agccaagaag gggatgctga aaggcttggg 360
ggacatgttc agcctggcca aactgaagcc ggagaagaga tgaacagcat gccagactca 420
aactgtcttg gacagcacaa gttgcacaat tgtttttttaa aagcacgggtg tctgggctgt 480
ggctcagtct agagtgcctg cctgggtgtac acaaagccgt gggctcaatc cccagcaccc 540
tata 544

<210> 42
<211> 272
<212> DNA
<213> Rattus norvegicus

<220>
<221> misc_feature
<223> Incyte ID No: 700330856H1

<400> 42
tagattcagc gggcaagtcc caggaggaag ttgtttccct gttgagaagc accaagatgg 60
aggggaccgt gagccttctg gtctttcgtc aagaagaggc tttccagcca agggaaatga 120
atgccgaacc cagccagatg cagagtccaa aagaaacgaa agccgaagac gaggacattg 180
ttctcacacc tgacgggtacc agggagtttc tgactttcga agttccactg aatgactcag 240
ggtctgcagg gcttggtgtc agcgtcaagg gg 272

<210> 43
<211> 300
<212> DNA
<213> Rattus norvegicus

<220>
<221> misc_feature
<223> Incyte ID No: 700273304H1

<400> 43
actgaatggg aacattcctt tccaccgccc acggccacga atcatccgag gaaggggctg 60
caacgagagc ttcagagccg ccattgacaa gtcctacgat aagcccatgg tggatgacga 120
cgacgaaggc atggagacct tggagaaga cacagaagaa agttcaaggc cagggaggga 180
gtccgtgtcc acgtccagtg atcagccttc ctattctctg gagagacaaa tgaatggaga 240
cccagagaag agggacaagg cagagaagaa aaaggacaaa gccggaaagg ataagaagaa 300

<210> 44
<211> 300
<212> DNA
<213> Rattus norvegicus

<220>
<221> misc_feature
<223> Incyte ID No: 701517518H1

<400> 44
caggatctca cactccctct acagtgggat cgaggggctg gatgagtctc ccaccaggaa 60
tgccgcactc agcaggataa tgggtaaatg ccagctctcc ccaaccgtga acatgccaca 120
tgatgacact gtcattgattg aagatgacag gctgcctgtg ctccctctc acctctctga 180
ccagtcctcc tccagctccc atgatgacgt gggattcata atgacagaag caggcacgtg 240
ggccaaggct accatcagtg actcagccga ctgctcattg actccagatg ttgatccggt 300

<210> 45
<211> 544

PC-0032 US

<212> DNA

<213> Rattus norvegicus

<220>

<221> misc_feature

<223> Incyte ID No: 701834089T1

<220>

<221> unsure

<222> 11-12, 17, 130-191

<223> a, t, c, g, or other

<400> 45

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aaacctgagt nnccttnaca acccaaagta aattttattgt ttggatttta aaaaaacttt 60
ctttgagaca cgtttcgtgt atcccaggct ggcctcgaac actacgtatg caggatgacc 120
ttgaacttcn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180
nnnnnnnnnn ntatagggtg ctggggattg agcccacggc tttgtgtaca ccaggcaggc 240
actctagact gagccacagc ccagacaccg tgcttttaaa aaacaattgt gcaacttggt 300
ctgtccaaga cagtttgagt ctggcatgct gttcatctct tctccggctt cagtttggtc 360
aggctgaaca tgtcccccac gccttttcag atccccttct tggttttcag tttatccttc 420
tccttctctc ggtcttttct cttatccttt cgggctttgt cctttttctt ctctgccttg 480
tccctcttct ctgggtctcc attcatttgt ctctccagag aataggaagg ctgatcactg 540
gacg 544
```

<210> 46

<211> 196

<212> DNA

<213> Rattus norvegicus

<220>

<221> misc_feature

<223> Incyte ID No: 701480437H1

<400> 46

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ctctctctct ctcatccttg actgactaac ttcttttgctt tattgccaga caaagcagga 60
agaatgccag ctctgtatca caggattcct gggaacagaa ctacgccctt ggtgaaggct 120
tccagagtgc caaggagaac cccagggtatt ccagttacca gggctccagg aacggctatc 180
taggtggcca tggctt 196
```

<210> 47

<211> 273

<212> DNA

<213> Rattus norvegicus

<220>

<221> misc_feature

<223> Incyte ID No: 701190235H1

<400> 47

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gcagatgtaa cgagttgcgg tctcctggga gccccgctgc acccgatctg cccatacaaa 60
cagagttgga tgacagacaa cgcaggatct cacactcctt ctacagtggg atcgatgggc 120
tggatgagtc tcccaccagg aatgccgcac tcagcaggat aatgggtaaa tgccagctct 180
ccccaaccgt gaacatgcta catgatgaca ctgtcatgat tgaagatgac aggctgcctg 240
tgctcactcc tcacctctct gaccagtccct cct 273
```

<210> 48

PC-0032 US

<211> 248
<212> DNA
<213> Rattus norvegicus

<220>
<221> misc_feature
<223> Incyte ID No: 700939688H1

<400> 48
cagagaagag ggacaaggca gagaagaaaa aggacaaagc cggaaaggat aagaagaaag 60
accgagagaa ggagaaggat aaactgaaag ccaagaaggg gatgctgaaa ggcttggggg 120
acatgttcag cctggccaaa ctgaagccgg agaagagatg aacagcatgc cagactcaa 180
ctgtcttgga cagcacaagt tgcacaattg ttttttaaaa gcacggtgtc tgggctgtgg 240
ctcagtct 248

<210> 49
<211> 351
<212> DNA
<213> Rattus norvegicus

<220>
<221> misc_feature
<223> Incyte ID No: 700939688F6

<220>
<221> unsure
<222> 337
<223> a, t, c, g, or other

<400> 49
cagagaagag ggacaaggca gagaagaaaa aggacaaagc cggaaaggat aagaagaaag 60
accgagagaa ggagaaggat aaactgaaag ccaagaaggg gatgctgaaa ggcttggggg 120
acatgttcag cctggccaaa ctgaagccgg agaagagatg aacagcatgc cagactcaa 180
ctgtcttgga cagcacaagt tgcacaattg ttttttaaaa gcacggtgtc tgggctgtgg 240
ctcagtctag aagatgcctg cctggctgta cacaagagcc agtggagctc aagtccccag 300
acagccctat agaaccagcg tgtggtagac acatgcnctg tcacccagc a 351

<210> 50
<211> 571
<212> DNA
<213> Rattus norvegicus

<220>
<221> misc_feature
<223> Incyte ID No: 702582937T1

<400> 50
cacttttagca acccagcctt ggttttacaat acaggatggt cagaccaaca gatgaacggc 60
gggaacacgg agggcctcgt gccacaggca tgcacggaga atgggactcc cgggtgctcag 120
agggacatcg acaggctctc gagtgggatg gctctccttc tgtttgtgaa taaacagcag 180
agtcactcag taatgttggc ctgcgtcaggt cgggacatgg tatgaggata taggagacca 240
aatcctgact gcaacctcaa aagctgtgtt gaggttgatt ctcagaatcc caagtgactg 300
acctttttcc ttgatccac tctgtgcctc ccttgacaac ctacggtgac acgaagtaaa 360
gtaaggactg gatagaccgg cctaagctcc tccagagagt cttccctcag actcctatct 420
ccttcctcgg ggtgcgtaca catgggccac tcccatgccc cttgttcccg agtgtcatga 480
gtgactgaaa ctgaacgcat gtacttatag aaccactgac tagaaatcgg ctgtagatat 540

gggtgggtgg agttataaaag ggcagttgga a

571

<210> 51

<211> 694

<212> DNA

<213> Rattus norvegicus

<220>

<221> misc_feature

<223> Incyte ID No: 700299037F6

<400> 51

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ctctaggggtg gtagtgaaga agctaagcca taggccagtg ccgttggttc tgggggggtga 60
gggtaactttt ccaactgcct tataactcca ccacccatat cacagcgatt ctagtcagtg 120
tttataagta catgcgttca gtttcagtca ctcatgacac tcgggaacaa ggggcatggg 180
agtggcccat gtgtacgcac cccgaggaag gagataggag ctgagggaag actctctgga 240
ggagcttagg ccggtctatc cagtccttac tttacttcgt gtcaccgtag gttgtcaagg 300
gaggcacaga gtgggacaag gaaaaaggtc agtcacttgg gattctgaga atcaacctca 360
acacagcttt tgagggttgca gtcaggattg gtctcctata tcctcatacc atgtcccgac 420
ctgacgagggc caacattact gagtgactct gctgtttatt cacaacaga aggagagcca 480
tcccactcga ggacctgtcg atgtccctct gagcaccggg agtcccattc tccgtgcatg 540
cctgtggcac gaggcctccg tggtcccgcc gttcatctgt tgggtctgaac atcctgtatg 600
taaaccaagg ctgggttgct aaagtgcctg agaatctcga tataaaaaac aaaaaacaaa 660
aaaatccttg gggcaaaagc tcagagtacc atgt 694

```

<210> 52

<211> 110

<212> DNA

<213> Rattus norvegicus

<220>

<221> misc_feature

<223> Incyte ID No: 701246488H1

<400> 52

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gattgaagat gacaggctgc ctgtgctccc tcctgacctc tctgaccagg cgtcctccag 60
ctcccatgat gacgtgggat tcataatgac agaagcaggc acgtgggcca 110

```

<210> 53

<211> 578

<212> DNA

<213> Canis familiaris

<220>

<221> misc_feature

<223> Incyte ID No: 702759912H1

<400> 53

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atgaaagtga ccgtgtgctt cgggcggacc cgggtggtcg tgccgtgcgg ggacgggcac 60
atgaaagtgtt tcagcctcat ccagcaagcg gtgaccgct accggaaggc catcgccaag 120
gatccaaact actggataca ggtgcaccga cttgaacatg gagatggagg aatactagac 180
cttgatgaca ccctctgtga tgtagcagat gataaagaca gactggtagc agtgtttgat 240
gagcaagatc cacatcatgg aggtgatggc accagtgccg gctccacagg taccagagt 300
ccagagatat ttggcagtga gcttggcacc aacaatgttt cagcctttca gccttatcaa 360
gctacaagtg aaattgaggt cacaccttca gttcttcgtg caaatatgcc tcttcatgtc 420
cgacgaagca gtgacccggc ttttaattggc ctttcaactt ccatcagtga cactaatatt 480

```

PC-0032 US

ccttctgaag agccttcacg gaagaacccc acacgttggg caacaacagc tggctttctg 540
aagcaaaaca ctgctggcag ccctaatact gtgacaaa 578

<210> 54
<211> 293
<212> DNA
<213> Mus musculus

<220>
<221> misc_feature
<223> Incyte ID No: 700112340H1

<400> 54
gggcatttga ctgagatgtc ccaaagggtgc ctattggaag agcattatga tccaaactac 60
tggatacagg tgcacgcgtt ggagcatgga gatggaggga ttctagacct ggatgacatc 120
ctctgtgacg ttgctgatga caaagacaga ctggtagcag tatttgatga acaggatccc 180
caccatggag gagatggtag cagcgccagc tccacgggaa cccagagtcc agagatattc 240
ggcagtgaag tgggcaccaa caatgtttct gcttttcagc cttatcaagc cac 293

<210> 55
<211> 233
<212> DNA
<213> Mus musculus

<220>
<221> misc_feature
<223> Incyte ID No: 700827810H1

<400> 55
cgcgccggc atcgagagt ggtcggcact cgggtgtccgt ggagggttcaa gtacaacggc 60
agcgccagga ggagcgagag agcttcacagc agggccagcg ccagtacagc tctactgcaa 120
gacaaagcag gaagaatgcc agctccatat cacaggattc ctgggaacag aagagtgaag 180
aaatctttgg gcaagtatgg ccctagcagt gtagaagaca ccacaggaag tgg 233

<210> 56
<211> 222
<212> DNA
<213> Mus musculus

<220>
<221> misc_feature
<223> Incyte ID No: 700109331H1

<400> 56
gggcatctca aatgcaagga aaactaatct ttttgccaaa ttgacacttt gtaaatttat 60
tttctctatt gctaaaaata aaatagacat gtgtttggga ccctgagtct catcccgaag 120
catccgaacc ttactcaaag aatcatggag attgtactca ctacctaata ccatgctttt 180
tgattttcgt gttttaacga aatccaattg actggcatct ga 222

<210> 57
<211> 369
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

PC-0032 US

<223> Incyte ID No: g6661750

<400> 57

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aaggggcgct gccgcgagcc tccgggcctc aggggtgttcc ggggagcggc gccccgggtc 60
tctgggcccc cccgccccgg gcgtcctccg agagtggggg ctgcgcccgc ggggtcagac 120
acctgttcgg cccggccccg cgtggtcgcc gggggccagg atgaaagtga ccgtgtgctt 180
cggcaggacg ggcacgtggtg tgccctgcaa ggagggccag ctgcgcgtcg gcgagctcac 240
ccagcaggcg ctgcagcggg acctgaagac cccgggagaag ggtcctgggt actgggtgaa 300
gattcatcac ttagaatata cagatggagg aatcctggat ccagatgatg tcttggcaga 360
tgttgttga                                     369
```

<210> 58

<211> 511

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: GNN.g10801482_004.edit

<400> 58

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gccccggccg cacatgggtc gagggccgagg ctgcaatgag agcttttagag cagccattga 60
caaatcctac gatggacctg aagaaataga agctgacggg ctgtctgata agagctctca 120
ctctggccaa ggagctctga attgtgagtc tgcccctcag gggaattcgg agctagagga 180
catggaaaat aaagccagga aagtcaaaaa aacgaaagag aaggagaaga aaaaggaaaa 240
gggcaaattg aaagtcaagg agaaaaagcg caaagaggag aatgaagatc cagaaaggaa 300
aataaagaag aagggcttcg gcgccatgct gaggtatggg cctgctttga aggcaaagtt 360
ggttctcatt ttgtctctcc tgaaaaaagc gcacgctttt cctcgtcttc agccaaatgc 420
atacggctct caattctgtg ctcgttctct ttctgcagag gcagaggagc tttttgggga 480
aagttacagt gatgacagga cactgtctta a                                     511
```

<210> 59

<211> 591

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: g6993427

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gaactttctt ctgtgtcttc ttccaaggtc tccatgcctt catcatcatc atctaccacg 180
ggtttatcat aagatttgtc gatggcagct ctgaagctct cattgcatcc cctgcctctg 240
attatccgcg gccgtggacg atggaaagga atatcccat tcaaagtcac ctcggaact 300
gcggtctgca gactctccaa cgagcttgac ttcttcagac ccagggaagg acccacatct 360
ctgctgggag aacctgcttt ctggtcatcc actgtattga gtttagtctc gtcagctata 420
cctaaatcca tgctttttga ttttcgtgtt ttaacgaaat ccaattgact ggcactctgaa 480
aattgctttg tgcgtttttc tgacatactc tgacgtccaa atccttctcg ttgaaaagca 540
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<211> 389

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PC-0032 US

<220>

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tgatcttgaa ctttcttctg tgtcttcttc caaggtctcc atgccttcat catcatcatc 180
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<220>

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<223> Incyte ID No: g1733437

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aaaataaaaa tacaggaatc ctttacatca gaagaggaga ggatacgaat gaagcaggag 240
caggagagga ttcaagccaa aactcgagaa tttagggaac cgacaagctc gagagcgtga 300
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<212> PRT

<213> Rattus norvegicus

<220>

<221> misc_feature

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Val Thr Arg Tyr Arg Lys Ala Val Ala Lys Asp Pro Asn Tyr Trp
  35          40          45
Ile Gln Val His Arg Leu Glu His Gly Asp Gly Gly Ile Leu Asp
  50          55          60
Leu Asp Asp Ile Leu Cys Asp Val Ala Asp Asp Lys Asp Arg Leu
  65          70          75
Val Ala Val Phe Asp Glu Gln Asp Pro His His Gly Gly Asp Gly
  80          85          90
Thr Ser Ala Ser Ser Thr Gly Thr Gln Ser Pro Glu Ile Phe Gly
  95          100         105
Ser Glu Leu Gly Thr Asn Asn Val Ser Ala Phe Arg Pro Tyr Gln
```

DO NOT WRITE IN THESE SPACES

30

| | | | |
|---------------------|-----|-----|-----|
| Ser Leu Leu Val | 530 | 535 | 540 |
| Phe Arg Gln Glu Glu | 545 | 550 | 555 |
| Met Asn Ala Glu Pro | 560 | 565 | 570 |
| Ala Glu Asp Glu Asp | 575 | 580 | 585 |
| Phe Leu Thr Phe Glu | 590 | 595 | 600 |
| Leu Gly Val Ser Val | 605 | 610 | 615 |
| Asp Leu Gly Ile Phe | 620 | 625 | 630 |
| Ser Lys Asp Gly Arg | 635 | 640 | 645 |
| Asn Gly Glu Ser Leu | 650 | 655 | 660 |
| Thr Leu Arg Arg Ser | 665 | 670 | 675 |
| Ile Gln Leu Ile Val | 680 | 685 | 690 |
| Arg Ser Pro Gly Ser | 695 | 700 | 705 |
| Glu Leu Asp Asp Arg | 710 | 715 | 720 |
| Gly Ile Glu Gly Leu | 725 | 730 | 735 |
| Ser Arg Ile Met Gly | 740 | 745 | 750 |
| Val Asn Met Pro His | 755 | 760 | 765 |
| Leu Pro Val Leu Pro | 770 | 775 | 780 |
| Ser His Asp Asp Val | 785 | 790 | 795 |
| Ala Lys Ala Thr Ile | 800 | 805 | 810 |
| Asp Val Asp Pro Val | 815 | 820 | 825 |
| Gln Ser Met Ser Glu | 830 | 835 | 840 |
| Gln Leu Asp Phe Val | 845 | 850 | 855 |
| Gly Ile Ala Asp Glu | 860 | 865 | 870 |
| Ala Gly Ser Pro Asn | 875 | 880 | 885 |
| Lys Ser Ser Ser Leu | 890 | 895 | 900 |
| Thr Leu Asn Gly Asn | 905 | 910 | 915 |
| Ile Arg Gly Arg Gly | 920 | 925 | 930 |
| Lys Ser Tyr Asp Lys | 935 | 940 | 945 |
| Glu Thr Leu Glu Glu | | | |

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| | | | | | |
|---------------------|---------------------|---------------------|------|--|------|
| | 950 | | 955 | | 960 |
| Glu Ser Val Ser Thr | Ser Ser Asp Gln Pro | Ser Tyr Ser Leu Glu | | | |
| | 965 | | 970 | | 975 |
| Arg Gln Met Asn Gly | Asp Pro Glu Lys Arg | Asp Lys Ala Glu Lys | | | |
| | 980 | | 985 | | 990 |
| Lys Lys Asp Lys Ala | Gly Lys Asp Lys Lys | Lys Asp Arg Glu Lys | | | |
| | 995 | | 1000 | | 1005 |
| Glu Lys Asp Lys Leu | Lys Ala Lys Lys Gly | Met Leu Lys Gly Leu | | | |
| | 1010 | | 1015 | | 1020 |
| Gly Asp Met Phe Arg | Phe Gly Lys His Arg | Lys Asp Asp Lys Met | | | |
| | 1025 | | 1030 | | 1035 |
| Glu Lys Met Gly Arg | Ile Lys Ile Gln Asp | Ser Phe Thr Ser Glu | | | |
| | 1040 | | 1045 | | 1050 |
| Glu Asp Arg Val Arg | Met Lys Glu Glu Gln | Glu Arg Ile Gln Ala | | | |
| | 1055 | | 1060 | | 1065 |
| Lys Thr Arg Glu Phe | Arg Glu Arg Gln Ala | Arg Glu Arg Asp Tyr | | | |
| | 1070 | | 1075 | | 1080 |
| Ala Glu Ile Gln Asp | Phe His Arg Thr Phe | Gly Cys Asp Asp Glu | | | |
| | 1085 | | 1090 | | 1095 |
| Leu Leu Tyr Gly Gly | Met Ser Ser Tyr Asp | Gly Cys Leu Ala Leu | | | |
| | 1100 | | 1105 | | 1110 |
| Asn Ala Arg Pro Gln | Ser Pro Arg Glu Gly | His Leu Met Asp Thr | | | |
| | 1115 | | 1120 | | 1125 |
| Leu Tyr Ala Gln Val | Lys Lys Pro Arg Ser | Ser Lys Pro Gly Asp | | | |
| | 1130 | | 1135 | | 1140 |
| Ser Asn Arg Ser Thr | Pro Ser Asn His Asp | Arg Ile Gln Arg Leu | | | |
| | 1145 | | 1150 | | 1155 |
| Arg Gln Glu Phe Gln | Gln Ala Lys Gln Asp | Glu Asp Val Glu Asp | | | |
| | 1160 | | 1165 | | 1170 |
| Arg Arg Arg Thr Tyr | Ser Phe Glu Gln Ser | Trp Ser Ser Ser Arg | | | |
| | 1175 | | 1180 | | 1185 |
| Pro Ala Ser Gln Ser | Gly Arg His Ser Val | Ser Val Glu Val Gln | | | |
| | 1190 | | 1195 | | 1200 |
| Val Gln Arg Gln Arg | Gln Glu Glu Arg Glu | Ser Phe Gln Gln Ala | | | |
| | 1205 | | 1210 | | 1215 |
| Gln Arg Gln Tyr Ser | Ser Leu Pro Arg Gln | Ser Arg Lys Asn Ala | | | |
| | 1220 | | 1225 | | 1230 |
| Ser Ser Val Ser Gln | Asp Ser Trp Glu Gln | Asn Tyr Ala Pro Gly | | | |
| | 1235 | | 1240 | | 1245 |
| Glu Gly Phe Gln Ser | Ala Lys Glu Asn Pro | Arg Tyr Ser Ser Tyr | | | |
| | 1250 | | 1255 | | 1260 |
| Gln Gly Ser Arg Asn | Gly Tyr Leu Gly Gly | His Gly Phe Asn Ala | | | |
| | 1265 | | 1270 | | 1275 |
| Arg Val Met Leu Glu | Thr Gln Glu Leu Leu | Arg Gln Glu Gln Arg | | | |
| | 1280 | | 1285 | | 1290 |
| Arg Lys Glu Gln Gln | Leu Lys Lys Gln Pro | Pro Ala Asp Gly Val | | | |
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| Arg Gly Pro Phe Arg | Gln Asp Val Pro Pro | Ser Pro Ser Gln Val | | | |
| | 1310 | | 1315 | | 1320 |
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<212> PRT

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<220>

<221> misc_feature

<223> Incyte ID No: g8037915

<400> 63

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| 1 | | | | 5 | | | | | 10 | | | | | 15 |
| Cys | Gly | Asp | Gly | His | Met | Lys | Val | Phe | Ser | Leu | Ile | Gln | Gln | Ala |
| | | | | 20 | | | | | 25 | | | | | 30 |
| Val | Thr | Arg | Tyr | Arg | Lys | Ala | Ile | Ala | Lys | Asp | Pro | Asn | Tyr | Trp |
| | | | | 35 | | | | | 40 | | | | | 45 |
| Ile | Gln | Val | His | Arg | Leu | Glu | His | Gly | Asp | Gly | Gly | Ile | Leu | Asp |
| | | | | 50 | | | | | 55 | | | | | 60 |
| Leu | Asp | Asp | Ile | Leu | Cys | Asp | Val | Ala | Asp | Asp | Lys | Asp | Arg | Leu |
| | | | | 65 | | | | | 70 | | | | | 75 |
| Val | Ala | Val | Phe | Asp | Glu | Gln | Asp | Pro | His | His | Gly | Gly | Asp | Gly |
| | | | | 80 | | | | | 85 | | | | | 90 |
| Thr | Ser | Ala | Ser | Ser | Thr | Gly | Thr | Gln | Ser | Pro | Glu | Ile | Phe | Gly |
| | | | | 95 | | | | | 100 | | | | | 105 |
| Ser | Glu | Leu | Gly | Thr | Asn | Asn | Val | Ser | Ala | Phe | Gln | Pro | Tyr | Gln |
| | | | | 110 | | | | | 115 | | | | | 120 |
| Ala | Thr | Ser | Glu | Ile | Glu | Val | Thr | Pro | Ser | Val | Leu | Arg | Ala | Asn |
| | | | | 125 | | | | | 130 | | | | | 135 |
| Met | Pro | Leu | His | Val | Arg | Arg | Ser | Ser | Asp | Pro | Ala | Leu | Ile | Gly |
| | | | | 140 | | | | | 145 | | | | | 150 |
| Leu | Ser | Thr | Ser | Val | Ser | Asp | Ser | Asn | Phe | Ser | Ser | Glu | Glu | Pro |
| | | | | 155 | | | | | 160 | | | | | 165 |
| Ser | Arg | Lys | Asn | Pro | Thr | Arg | Trp | Ser | Thr | Thr | Ala | Gly | Phe | Leu |
| | | | | 170 | | | | | 175 | | | | | 180 |
| Lys | Gln | Asn | Thr | Ala | Gly | Ser | Pro | Lys | Thr | Cys | Asp | Arg | Lys | Asp |
| | | | | 185 | | | | | 190 | | | | | 195 |
| Glu | Asp | Gly | Thr | Glu | Glu | Asp | Asn | Ser | Arg | Val | Glu | Pro | Val | Gly |
| | | | | 200 | | | | | 205 | | | | | 210 |
| His | Ala | Asp | Thr | Gly | Leu | Glu | His | Ile | Pro | Asn | Phe | Ser | Leu | Asp |
| | | | | 215 | | | | | 220 | | | | | 225 |
| Asp | Met | Val | Lys | Leu | Val | Glu | Val | Pro | Asn | Asp | Gly | Gly | Pro | Leu |
| | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Ile | His | Val | Val | Pro | Phe | Ser | Ala | Arg | Gly | Gly | Arg | Thr | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Gly | Leu | Leu | Val | Lys | Arg | Leu | Glu | Lys | Gly | Gly | Lys | Ala | Glu | His |
| | | | | 260 | | | | | 265 | | | | | 270 |
| Glu | Asn | Leu | Phe | Arg | Glu | Asn | Asp | Cys | Ile | Val | Arg | Ile | Asn | Asp |
| | | | | 275 | | | | | 280 | | | | | 285 |
| Gly | Asp | Leu | Arg | Asn | Arg | Arg | Phe | Glu | Gln | Ala | Gln | His | Met | Phe |
| | | | | 290 | | | | | 295 | | | | | 300 |
| Arg | Gln | Ala | Met | Arg | Thr | Pro | Ile | Ile | Trp | Phe | His | Val | Val | Pro |
| | | | | 305 | | | | | 310 | | | | | 315 |
| Ala | Ala | Asn | Lys | Glu | Gln | Tyr | Glu | Gln | Leu | Ser | Gln | Ser | Glu | Lys |
| | | | | 320 | | | | | 325 | | | | | 330 |
| Asn | Asn | Tyr | Tyr | Ser | Ser | Arg | Phe | Ser | Pro | Asp | Ser | Gln | Tyr | Ile |
| | | | | 335 | | | | | 340 | | | | | 345 |
| Asp | Asn | Arg | Ser | Val | Asn | Ser | Ala | Gly | Leu | His | Thr | Val | Gln | Arg |
| | | | | 350 | | | | | 355 | | | | | 360 |

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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ala | Pro | Arg | Leu | Asn | His | Pro | Pro | Glu | Gln | Ile | Asp | Ser | His | Ser | |
| | | | | 365 | | | | | 370 | | | | | 375 | |
| Arg | Leu | Pro | His | Ser | Ala | His | Pro | Ser | Gly | Lys | Pro | Pro | Ser | Ala | |
| | | | | 380 | | | | | 385 | | | | | 390 | |
| Pro | Ala | Ser | Ala | Pro | Gln | Asn | Val | Phe | Ser | Thr | Thr | Val | Ser | Ser | |
| | | | | 395 | | | | | 400 | | | | | 405 | |
| Gly | Tyr | Asn | Thr | Lys | Lys | Ile | Gly | Lys | Arg | Leu | Asn | Ile | Gln | Leu | |
| | | | | 410 | | | | | 415 | | | | | 420 | |
| Lys | Lys | Gly | Thr | Glu | Gly | Leu | Gly | Phe | Ser | Ile | Thr | Ser | Arg | Asp | |
| | | | | 425 | | | | | 430 | | | | | 435 | |
| Val | Thr | Ile | Gly | Gly | Ser | Ala | Pro | Ile | Tyr | Val | Lys | Asn | Ile | Leu | |
| | | | | 440 | | | | | 445 | | | | | 450 | |
| Pro | Arg | Gly | Ala | Ala | Ile | Gln | Asp | Gly | Arg | Leu | Lys | Ala | Gly | Asp | |
| | | | | 455 | | | | | 460 | | | | | 465 | |
| Arg | Leu | Ile | Glu | Val | Asn | Gly | Val | Asp | Leu | Val | Gly | Lys | Ser | Gln | |
| | | | | 470 | | | | | 475 | | | | | 480 | |
| Glu | Glu | Val | Val | Ser | Leu | Leu | Arg | Ser | Thr | Lys | Met | Glu | Gly | Thr | |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Val | Ser | Leu | Leu | Val | Phe | Arg | Gln | Glu | Asp | Ala | Phe | His | Pro | Arg | |
| | | | | 500 | | | | | 505 | | | | | 510 | |
| Glu | Leu | Lys | Ala | Glu | Asp | Glu | Asp | Ile | Val | Leu | Thr | Pro | Asp | Gly | |
| | | | | 515 | | | | | 520 | | | | | 525 | |
| Thr | Arg | Glu | Phe | Leu | Thr | Phe | Glu | Val | Pro | Leu | Asn | Asp | Ser | Gly | |
| | | | | 530 | | | | | 535 | | | | | 540 | |
| Ser | Ala | Gly | Leu | Gly | Val | Ser | Val | Lys | Gly | Asn | Arg | Ser | Lys | Glu | |
| | | | | 545 | | | | | 550 | | | | | 555 | |
| Asn | His | Ala | Asp | Leu | Gly | Ile | Phe | Val | Lys | Ser | Ile | Ile | Asn | Gly | |
| | | | | 560 | | | | | 565 | | | | | 570 | |
| Gly | Ala | Ala | Ser | Lys | Asp | Gly | Arg | Leu | Arg | Val | Asn | Asp | Gln | Leu | |
| | | | | 575 | | | | | 580 | | | | | 585 | |
| Ile | Ala | Val | Asn | Gly | Glu | Ser | Leu | Leu | Gly | Lys | Thr | Asn | Gln | Asp | |
| | | | | 590 | | | | | 595 | | | | | 600 | |
| Ala | Met | Glu | Thr | Leu | Arg | Arg | Ser | Met | Ser | Thr | Glu | Gly | Asn | Lys | |
| | | | | 605 | | | | | 610 | | | | | 615 | |
| Arg | Gly | Met | Ile | Gln | Leu | Ile | Val | Ala | Arg | Arg | Ile | Ser | Lys | Cys | |
| | | | | 620 | | | | | 625 | | | | | 630 | |
| Asn | Glu | Leu | Lys | Ser | Pro | Gly | Ser | Pro | Pro | Gly | Pro | Glu | Leu | Pro | |
| | | | | 635 | | | | | 640 | | | | | 645 | |
| Ile | Glu | Thr | Ala | Leu | Asp | Asp | Arg | Glu | Arg | Arg | Ile | Ser | His | Ser | |
| | | | | 650 | | | | | 655 | | | | | 660 | |
| Leu | Tyr | Ser | Gly | Ile | Glu | Gly | Leu | Asp | Glu | Ser | Pro | Ser | Arg | Asn | |
| | | | | 665 | | | | | 670 | | | | | 675 | |
| Ala | Ala | Leu | Ser | Arg | Ile | Met | Gly | Lys | Tyr | Gln | Leu | Ser | Pro | Thr | |
| | | | | 680 | | | | | 685 | | | | | 690 | |
| Val | Asn | Met | Pro | Gln | Asp | Asp | Thr | Val | Ile | Ile | Glu | Asp | Asp | Arg | |
| | | | | 695 | | | | | 700 | | | | | 705 | |
| Leu | Pro | Val | Leu | Pro | Pro | His | Leu | Ser | Asp | Gln | Ser | Ser | Ser | Ser | |
| | | | | 710 | | | | | 715 | | | | | 720 | |
| Ser | His | Asp | Asp | Val | Gly | Phe | Val | Thr | Ala | Asp | Ala | Gly | Thr | Trp | |
| | | | | 725 | | | | | 730 | | | | | 735 | |
| Ala | Lys | Ala | Ala | Ile | Ser | Asp | Ser | Ala | Asp | Cys | Ser | Leu | Ser | Pro | |
| | | | | 740 | | | | | 745 | | | | | 750 | |
| Asp | Val | Asp | Pro | Val | Leu | Ala | Phe | Gln | Arg | Glu | Gly | Phe | Gly | Arg | |
| | | | | 755 | | | | | 760 | | | | | 765 | |
| Gln | Ile | Ala | Asp | Glu | Thr | Lys | Leu | Asn | Thr | Val | Asp | Asp | Gln | Lys | |
| | | | | 770 | | | | | 775 | | | | | 780 | |

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| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|------|
| Ala | Gly | Ser | Pro | Ser | Arg | Asp | Val | Gly | Pro | Ser | Leu | Gly | Leu | Lys |
| | | | | 785 | | | | | 790 | | | | | 795 |
| Lys | Ser | Ser | Ser | Leu | Glu | Ser | Leu | Gln | Thr | Ala | Val | Ala | Glu | Val |
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| Thr | Leu | Asn | Gly | Asp | Ile | Pro | Phe | His | Arg | Pro | Arg | Pro | Arg | Ile |
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| Ile | Arg | Gly | Arg | Gly | Cys | Asn | Glu | Ser | Phe | Arg | Ala | Ala | Ile | Asp |
| | | | | 830 | | | | | 835 | | | | | 840 |
| Lys | Ser | Tyr | Asp | Lys | Pro | Ala | Val | Asp | Asp | Asp | Asp | Glu | Gly | Met |
| | | | | 845 | | | | | 850 | | | | | 855 |
| Glu | Thr | Leu | Glu | Glu | Asp | Thr | Glu | Glu | Ser | Ser | Arg | Ser | Gly | Arg |
| | | | | 860 | | | | | 865 | | | | | 870 |
| Glu | Ser | Val | Ser | Thr | Ala | Ser | Asp | Gln | Pro | Ser | His | Ser | Leu | Glu |
| | | | | 875 | | | | | 880 | | | | | 885 |
| Arg | Gln | Met | Asn | Gly | Asn | Gln | Glu | Lys | Gly | Asp | Lys | Thr | Asp | Arg |
| | | | | 890 | | | | | 895 | | | | | 900 |
| Lys | Lys | Asp | Lys | Thr | Gly | Lys | Glu | Lys | Lys | Lys | Asp | Arg | Asp | Lys |
| | | | | 905 | | | | | 910 | | | | | 915 |
| Glu | Lys | Asp | Lys | Met | Lys | Ala | Lys | Lys | Gly | Met | Leu | Lys | Gly | Leu |
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| Gly | Asp | Met | Phe | Arg | Phe | Gly | Lys | His | Arg | Lys | Asp | Asp | Lys | Ile |
| | | | | 935 | | | | | 940 | | | | | 945 |
| Glu | Lys | Thr | Gly | Lys | Ile | Lys | Ile | Gln | Glu | Ser | Phe | Thr | Ser | Glu |
| | | | | 950 | | | | | 955 | | | | | 960 |
| Glu | Glu | Arg | Ile | Arg | Met | Lys | Gln | Glu | Gln | Glu | Arg | Ile | Gln | Ala |
| | | | | 965 | | | | | 970 | | | | | 975 |
| Lys | Thr | Arg | Glu | Phe | Arg | Glu | Arg | Gln | Ala | Arg | Glu | Arg | Asp | Tyr |
| | | | | 980 | | | | | 985 | | | | | 990 |
| Ala | Glu | Ile | Gln | Asp | Phe | His | Arg | Thr | Phe | Gly | Cys | Asp | Asp | Glu |
| | | | | 995 | | | | | 1000 | | | | | 1005 |
| Leu | Met | Tyr | Gly | Gly | Val | Ser | Ser | Tyr | Glu | Gly | Ser | Met | Ala | Leu |
| | | | | 1010 | | | | | 1015 | | | | | 1020 |
| Asn | Ala | Arg | Pro | Gln | Ser | Pro | Arg | Glu | Gly | His | Met | Met | Asp | Ala |
| | | | | 1025 | | | | | 1030 | | | | | 1035 |
| Leu | Tyr | Ala | Gln | Val | Lys | Lys | Pro | Arg | Asn | Ser | Lys | Pro | Ser | Pro |
| | | | | 1040 | | | | | 1045 | | | | | 1050 |
| Val | Asp | Ser | Asn | Arg | Ser | Thr | Pro | Ser | Asn | His | Asp | Arg | Ile | Gln |
| | | | | 1055 | | | | | 1060 | | | | | 1065 |
| Arg | Leu | Arg | Gln | Glu | Phe | Gln | Gln | Ala | Lys | Gln | Asp | Glu | Asp | Val |
| | | | | 1070 | | | | | 1075 | | | | | 1080 |
| Glu | Asp | Arg | Arg | Arg | Thr | Tyr | Ser | Phe | Glu | Gln | Pro | Trp | Pro | Asn |
| | | | | 1085 | | | | | 1090 | | | | | 1095 |
| Ala | Arg | Pro | Ala | Thr | Gln | Ser | Gly | Arg | His | Ser | Val | Ser | Val | Glu |
| | | | | 1100 | | | | | 1105 | | | | | 1110 |
| Val | Gln | Met | Gln | Arg | Gln | Arg | Gln | Glu | Glu | Arg | Glu | Ser | Ser | Gln |
| | | | | 1115 | | | | | 1120 | | | | | 1125 |
| Gln | Ala | Gln | Arg | Gln | Tyr | Ser | Ser | Leu | Pro | Arg | Gln | Ser | Arg | Lys |
| | | | | 1130 | | | | | 1135 | | | | | 1140 |
| Asn | Ala | Ser | Ser | Val | Ser | Gln | Asp | Ser | Trp | Glu | Gln | Asn | Tyr | Ser |
| | | | | 1145 | | | | | 1150 | | | | | 1155 |
| Pro | Gly | Glu | Gly | Phe | Gln | Ser | Ala | Lys | Glu | Asn | Pro | Arg | Tyr | Ser |
| | | | | 1160 | | | | | 1165 | | | | | 1170 |
| Ser | Tyr | Gln | Gly | Ser | Arg | Asn | Gly | Tyr | Leu | Gly | Gly | His | Gly | Phe |
| | | | | 1175 | | | | | 1180 | | | | | 1185 |
| Asn | Ala | Arg | Val | Met | Leu | Glu | Thr | Gln | Glu | Leu | Leu | Arg | Gln | Glu |
| | | | | 1190 | | | | | 1195 | | | | | 1200 |

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| | | | | | | | | | | | | | | |
|-----|-----|-----|------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|------|
| Gln | Arg | Arg | Lys | Glu | Gln | Gln | Met | Lys | Lys | Gln | Pro | Pro | Ser | Glu |
| | | | 1205 | | | | | | 1210 | | | | | 1215 |
| Gly | Pro | Ser | Asn | Tyr | Asp | Ser | Tyr | Lys | Lys | Val | Gln | Asp | Pro | Ser |
| | | | 1220 | | | | | | 1225 | | | | | 1230 |
| Tyr | Ala | Pro | Pro | Lys | Gly | Pro | Phe | Arg | Gln | Asp | Val | Pro | Pro | Ser |
| | | | 1235 | | | | | | 1240 | | | | | 1245 |
| Pro | Ser | Gln | Val | Ala | Arg | Leu | Asn | Arg | Leu | Gln | Thr | Pro | Glu | Lys |
| | | | 1250 | | | | | | 1255 | | | | | 1260 |
| Gly | Arg | Pro | Phe | Tyr | Ser | | | | | | | | | |
| | | | 1265 | | | | | | | | | | | |